STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 183912

TO: Ruixiang Li
Location: rem/4D59/4C70
Art Unit: 1646
April 6, 2006

Case Serial Number: 10/811198

From: P. Sheppard
Location: Remsen Building
Phone: (571) 272-2529

sheppard@uspto.gov

Search Notes

78733 183912 MG

STIC-Biotech/ChemLib

From: Li, Ruixiang
Sent: Saturday, April 01, 2006 9:34 AM
To: STIC-Biotech/ChemLib
Subject: Sequence search of Application No.10/811,198

Please do a standard search on:

SEQ ID NO: 2 against both commerical and interference amino acid databases.

Thank you very much!

Ruixiang Li
GAU 1646
REM 4D59
Mail Box 4C70
(571) 272-0875

****
Searcher:_____
Searcher Phone:_____
Date Searcher Picked up:_____
Date completed:_____
Searcher Prep Time:_____
Online Time:_____

****
Type of Search
NA#_____ AA#:_____
S/L:_____ Oligomer:_____
Encode/Transl:_____
Structure #:_____Text:____
Inventor:_____ Litigation:___

****
Vendors and cost where applicable
STN:_____
DIALOG:_____
QUESTEL/ORBIT:_____
LEXIS/NEXIS:_____
SEQUENCE SYSTEM:_____
WWW/Internet:_____
Other (Specify):_____

OM protein - protein search, using sw model

Run on: April 4, 2006, 20:07:07 ; Search time 233 Seconds
(without alignments)
1105.227 Million cell updates/sec

Title: US-10-811-198-2
Perfect score: 1944
Sequence: 1 MASTESSLLRSLGLSPGPGS.....CRWAATPQDSSCSTPRADRL 365

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1944	100.0	365	1	P2RY4_HUMAN	P51582 homo sapien
2	1944	100.0	365	2	Q5JT22_HUMAN	Q5jt22 homo sapien
3	1938	99.7	365	2	Q502W2_HUMAN	Q502w2 homo sapien
4	1935	99.5	365	2	Q4VBB7_HUMAN	Q4vbb7 homo sapien
5	1934	99.5	365	2	Q4VBB8_HUMAN	Q4vbb8 homo sapien
6	1597	82.2	361	1	P2RY4_RAT	O35811 rattus norv
7	1561	80.3	361	1	P2RY4_MOUSE	Q9jjs7 mus musculu
8	1176	60.5	230	2	Q5Y809_PIG	Q5y809 sus scrofa
9	1127.5	58.0	374	2	O57466_MELGA	O57466 meleagris g
10	1038.5	53.4	347	2	Q7ZZA4_BRARE	Q7zza4 brachydanio
11	1022.5	52.6	543	2	Q5BJ79_XENTR	Q5bj79 xenopus tro
12	1007.5	51.8	537	1	P2RY8_XENLA	P79928 xenopus lae
13	1007.5	51.8	537	2	Q7ZWQ7_XENLA	Q7zwq7 xenopus lae
14	970.5	49.9	302	2	Q4RP73_TETNG	Q4rp73 tetraodon n
15	965	49.6	377	1	P2RY2_HUMAN	P41231 homo sapien
16	962.5	49.5	373	1	P2RY2_MOUSE	P35383 mus musculu
17	950	48.9	374	1	P2RY2_RAT	P41232 rattus norv
18	940.5	48.4	373	2	Q5YA25_PIG	Q5ya25 sus scrofa
19	910.5	46.8	349	2	Q6P852_XENTR	Q6p852 xenopus tro
20	823	42.3	165	1	P2RY4_CRIGR	P58826 cricetulus
21	809	41.6	164	2	Q5DKX1_PIG	Q5dkx1 sus scrofa
22	803.5	41.3	310	2	Q4SEL5_TETNG	Q4sel5 tetraodon n
23	662	34.1	125	2	Q6QHU9_BOVIN	Q6qhu9 bos taurus
24	641.5	33.0	373	1	P2RY1_HUMAN	P47900 homo sapien
25	631	32.5	362	1	P2RY1_MELGA	P49652 meleagris g
26	628	32.3	362	1	P2RY1_CHICK	P34996 gallus gall
27	628	32.3	373	1	P2RY1_CAVPO	P59902 cavia porce
28	621	31.9	373	1	P2RY1_BOVIN	P48042 bos taurus
29	620.5	31.9	357	2	Q9DE05_RAJER	Q9de05 raja erinac
30	616	31.7	373	1	P2RY1_RAT	P49651 rattus norv
31	614	31.6	373	1	P2RY1_MOUSE	P49650 mus musculu
32	614	31.6	373	2	Q544J5_MOUSE	Q544j5 m adult mal
33	611	31.4	373	2	Q5XX73_CANFA	Q5xx73 canis famil
34	611	31.4	373	2	Q8BMJ5_MOUSE	Q8bmj5 mus musculu
35	608.5	31.3	361	2	Q90X57_XENLA	Q90x57 xenopus lae
36	607	31.2	308	2	Q4SEL9_TETNG	Q4sel9 tetraodon n
37	607	31.2	358	2	Q4SPQ4_TETNG	Q4spq4 tetraodon n
38	603	31.0	328	1	P2RY3_CHICK	Q98907 gallus gall
39	599	30.8	328	1	P2RY3_MELGA	O93361 meleagris g
40	592	30.5	328	2	Q5R5L6_PONPY	Q5r516 pongo pygma
41	588	30.2	328	1	P2RY6_RAT	Q63371 rattus norv
42	586	30.1	328	1	P2RY6_HUMAN	Q15077 homo sapien
43	584	30.0	328	1	P2RY6_MOUSE	Q9erk9 mus musculu
44	575	29.6	182	2	Q5DKX2_PIG	Q5dkx2 sus scrofa
45	555	28.5	135	1	P2RY4_MERUN	Q99pe4 meriones un

ALIGNMENTS

RESULT 1
P2RY4_HUMAN
ID P2RY4_HUMAN STANDARD; PRT; 365 AA.
AC P51582;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 10-MAY-2005 (Rel. 47, Last annotation update)
DE P2Y purinoceptor 4 (P2Y4) (Uridine nucleotide receptor) (UNR) (P2P).
GN Name=P2RY4; Synonyms=NRU;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=96125055; PubMed=8537336; DOI=10.1074/jbc.270.52.30849;
RA Communi D., Pirotton S., Parmentier M., Boeynaems J.-M.;
RT "Cloning and functional expression of a human uridine nucleotide
RT receptor.";
RL J. Biol. Chem. 270:30849-30852(1995).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=96125054; PubMed=8537335; DOI=10.1074/jbc.270.52.30845;
RA Nguyen T., Erb L., Weisman G.A., Marchese A., Heng H.H.Q.,
RA Garrad R.C., George S.R., Turner J.T., O'Dowd B.F.;
RT "Cloning, expression, and chromosomal localization of the human
RT uridine nucleotide receptor gene.";
RL J. Biol. Chem. 270:30845-30848(1995).
RN [3]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Pancreas;
RX MEDLINE=96197801; PubMed=8617367; DOI=10.1016/0014-5793(96)00321-3;
RA Stam N.J., Klomp J., van der Heuvel M., Olijve W.;
RT "Molecular cloning and characterization of a novel orphan receptor
RT (P2P) expressed in human pancreas that shows high structural homology
RT to the P2U purinoceptor.";
RL FEBS Lett. 384:260-264(1996).
RN [4]
RP PHOSPHORYLATION SITES SER-333 AND SER-334, AND MUTAGENESIS OF SER-243;
RP SER-333; SER-334 AND SER-339.
RX MEDLINE=21192241; PubMed=11114308; DOI=10.1074/jbc.M009909200;
RA Brinson A.E., Harden T.K.;
RT "Differential regulation of the uridine nucleotide-activated P2Y4 and
RT P2Y6 receptors. Ser-333 and Ser-334 in the carboxyl terminus are
RT involved in agonist-dependent phosphorylation desensitization and
RT internalization of the P2Y4 receptor.";
RL J. Biol. Chem. 276:11939-11948(2001).
CC -!- FUNCTION: Receptor for UTP and UDP coupled to G-proteins that
CC activate a phosphatidylinositol-calcium second messenger system.
CC Not activated by ATP or ADP.
CC -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC -!- TISSUE SPECIFICITY: Pancreas.
CC -!- PTM: Phosphorylation of Ser-333 and Ser-334 is a key step in

```
CC       agonist-dependent desensitization and loss of surface P2RY4. This
CC       phosphorylation does not involve PKC, nor other calcium activated
CC       kinases.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; X91852; CAA62963.1; -; Genomic_DNA.
DR   EMBL; U40223; AAC50347.1; -; Genomic_DNA.
DR   EMBL; X96597; CAA65415.1; -; Genomic_DNA.
DR   PIR; S68679; S68679.
DR   HSSP; P34996; 1DDD.
DR   Ensembl; ENSG00000186912; Homo sapiens.
DR   HGNC; HGNC:8542; P2RY4.
DR   MIM; 300038; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0015065; F:uridine nucleotide receptor activity; TAS.
DR   GO; GO:0007204; P:positive regulation of cytosolic calcium io. . .; TAS.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Phosphorylation; Polymorphism; Receptor;
KW   Transducer; Transmembrane.
FT   TOPO_DOM      1     34       Extracellular (Potential).
FT   TRANSMEM     35     61       1 (Potential).
FT   TOPO_DOM     62     72       Cytoplasmic (Potential).
FT   TRANSMEM     73     95       2 (Potential).
FT   TOPO_DOM     96    112       Extracellular (Potential).
FT   TRANSMEM    113    131       3 (Potential).
FT   TOPO_DOM    132    154       Cytoplasmic (Potential).
FT   TRANSMEM    155    174       4 (Potential).
FT   TOPO_DOM    175    196       Extracellular (Potential).
FT   TRANSMEM    197    222       5 (Potential).
FT   TOPO_DOM    223    246       Cytoplasmic (Potential).
FT   TRANSMEM    247    269       6 (Potential).
FT   TOPO_DOM    270    287       Extracellular (Potential).
FT   TRANSMEM    288    309       7 (Potential).
FT   TOPO_DOM    310    365       Cytoplasmic (Potential).
FT   MOD_RES     333    333       Phosphoserine (Probable).
FT   MOD_RES     334    334       Phosphoserine (Probable).
FT   DISULFID    108    185       By similarity.
FT   VARIANT     168    168       V -> M (in dbSNP:1152186).
FT                                /FTId=VAR_011854.
FT   VARIANT     178    178       N -> T (in dbSNP:1152187).
FT                                /FTId=VAR_011855.
FT   VARIANT     191    191       P -> L (in dbSNP:1152188).
FT                                /FTId=VAR_011856.
FT   MUTAGEN     243    243       S->A: No effect.
FT   MUTAGEN     333    365       Missing: Abolishes agonist-induced
FT                                phosphorylation. Prevents agonist-induced
FT                                desensitization and loss of cell surface
FT                                receptors.
FT   MUTAGEN     333    359       SSLALVSLPEDSSCRWAATPQDSSCST->AALALVALPEDA
FT                                ACRWAAAPQDAACAA: Greatly reduces agonist-
FT                                induced desensitization and loss of cell
FT                                surface receptors.
FT   MUTAGEN     333    333       S->A: Greatly reduces agonist-induced
FT                                desensitization and loss of cell surface
FT                                receptors; when associated with A-334 and
FT                                A-339.
FT   MUTAGEN     334    334       S->A: Greatly reduces agonist-induced
FT                                desensitization and loss of cell surface
FT                                receptors; when associated with A-333 and
FT                                A-339.
FT   MUTAGEN     339    339       S->A: Greatly reduces agonist-induced
FT                                desensitization and loss of cell surface
FT                                receptors; when associated with A-333 and
FT                                A-334.
FT   MUTAGEN     344    365       Missing: No effect on agonist-induced
FT                                phosphorylation, no functional effect.
FT   MUTAGEN     356    365       Missing: No functional effect.
FT   CONFLICT     86     86       L -> V (in Ref. 2).
FT   CONFLICT    234    234       S -> A (in Ref. 2).
SQ   SEQUENCE   365 AA;  40963 MW;  23E0AFED3B7BDEED CRC64;
```

Query Match 100.0%; Score 1944; DB 1; Length 365;
Best Local Similarity 100.0%; Pred. No. 1.1e-131;
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365
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RESULT 2
Q5JT22_HUMAN
ID   Q5JT22_HUMAN PRELIMINARY;      PRT;   365 AA.
AC   Q5JT22;
DT   10-MAY-2005 (TrEMBLrel. 30, Created)
DT   10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Pyrimidinergic receptor P2Y, G-protein coupled, 4 (Pyrimidinergic
DE   receptor P2Y4).
GN   Name=P2RY4; ORFNames=RP13-26D14.5-001;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Brown A.;
RL   Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
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RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RG   NIH MGC Project;
RL   Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AL357752; CAI41492.1; -; Genomic_DNA.
DR   EMBL; BC096070; AAH96070.1; -; mRNA.
DR   EMBL; BC096067; AAH96067.1; -; mRNA.
DR   Ensembl; ENSG00000186912; Homo sapiens.
DR   GO; GO:0016021; C:integral to membrane; IEA.
DR   GO; GO:0045028; F:purinergic nucleotide receptor activity, G-. . .; IEA.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   365 AA;  40963 MW;  23E0AFED3B7BDEED CRC64;

  Query Match           100.0%;  Score 1944;  DB 2;  Length 365;
  Best Local Similarity  100.0%;  Pred. No. 1.1e-131;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365
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RESULT 3
Q502W2_HUMAN
ID   Q502W2_HUMAN PRELIMINARY;      PRT;   365 AA.
AC   Q502W2;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Pyrimidinergic receptor P2Y4.
GN   Name=P2RY4;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=G-protein coupled receptors;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=G-protein coupled receptors;
RG   NIH MGC Project;
RL   Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; BC095503; AAH95503.1; -; mRNA.
DR   Ensembl; ENSG00000186912; Homo sapiens.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   365 AA;  40950 MW;  B400BA02C1742B02 CRC64;

  Query Match            99.7%;  Score 1938;  DB 2;  Length 365;
  Best Local Similarity  99.7%;  Pred. No. 2.9e-131;
  Matches  364;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
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Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSTKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365

Db        361 RADRL 365


RESULT 4
Q4VBB7_HUMAN
ID   Q4VBB7_HUMAN PRELIMINARY;      PRT;   365 AA.
AC   Q4VBB7;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Pyrimidinergic receptor P2Y4.
GN   Name=P2RY4;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RG   NIH MGC Project;
RL   Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; BC096069; AAH96069.1; -; mRNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   365 AA;  40953 MW;  7CE0AFED247EC2F1 CRC64;

  Query Match             99.5%;  Score 1935;  DB 2;  Length 365;
  Best Local Similarity   99.5%;  Pred. No. 4.7e-131;
  Matches  363;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Db        241 LRSLRTVAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATTQDSSCSTP 360

Qy        361 RADRL 365

Db        361 RADRL 365


RESULT 5
Q4VBB8_HUMAN
ID   Q4VBB8_HUMAN PRELIMINARY;      PRT;   365 AA.
AC   Q4VBB8;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Pyrimidinergic receptor P2Y4.
GN   Name=P2RY4;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
```

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RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=PCR rescued clones;
RG   NIH MGC Project;
RL   Submitted (MAY-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; BC096068; AAH96068.1; -; mRNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   365 AA;  40947 MW;  68E0AFED3C0A19F1 CRC64;

  Query Match             99.5%;  Score 1934;  DB 2;  Length 365;
  Best Local Similarity   99.7%;  Pred. No. 5.6e-131;
  Matches  364;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 SSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 6
P2RY4_RAT
ID   P2RY4_RAT      STANDARD;      PRT;   361 AA.
AC   O35811;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   P2Y purinoceptor 4 (P2Y4).
GN   Name=P2ry4; Synonyms=P2y4;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=Sprague-Dawley; TISSUE=Liver;
RA   Bogdanov Y.D., Wildman S., King B.F., Burntock G.;
RL   Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=Sprague-Dawley; TISSUE=Brain;
RX   MEDLINE=98421785; PubMed=9751165;
RA   Webb T.E., Henderson D., Roberts J.A., Barnard E.A.;
RT   "Molecular cloning and characterization of the rat P2Y4 receptor.";
RL   J. Neurochem. 71:1348-1357(1998).
CC   -!- FUNCTION: Receptor for ATP and UTP coupled to G-proteins that
CC       activate a phosphatidylinositol-calcium second messenger system.
CC       Not activated by ADP or UDP.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Widely expressed at low levels. In brain,
CC       higher expression in the pineal gland and ventricular system.
CC   -!- PTM: Phosphorylation of Ser-329 and Ser-330 is a key step in
CC       agonist-dependent desensitization and loss of surface P2RY4. This
CC       phosphorylation does not involve PKC, nor other calcium-activated
CC       kinases (By similarity).
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; Y14705; CAA75007.1; -; Genomic_DNA.
DR   EMBL; Y11433; CAA72241.1; -; mRNA.
DR   HSSP; P34996; 1DDD.
DR   Ensembl; ENSRNOG00000002953; Rattus norvegicus.
DR   RGD; 61798; P2ry4.
DR   GO; GO:0016324; C:apical plasma membrane; IDA.
DR   GO; GO:0016323; C:basolateral plasma membrane; IDA.
DR   GO; GO:0005524; F:ATP binding; IDA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Phosphorylation; Receptor;
KW   Transducer; Transmembrane.
FT   TOPO_DOM      1     30       Extracellular (Potential).
FT   TRANSMEM     31     58       1 (Potential).
FT   TOPO_DOM     59     68       Cytoplasmic (Potential).
FT   TRANSMEM     69     91       2 (Potential).
FT   TOPO_DOM     92    108       Extracellular (Potential).
FT   TRANSMEM    109    127       3 (Potential).
FT   TOPO_DOM    128    149       Cytoplasmic (Potential).
FT   TRANSMEM    150    170       4 (Potential).
FT   TOPO_DOM    171    192       Extracellular (Potential).
FT   TRANSMEM    193    218       5 (Potential).
FT   TOPO_DOM    219    242       Cytoplasmic (Potential).
FT   TRANSMEM    243    265       6 (Potential).
FT   TOPO_DOM    266    283       Extracellular (Potential).
FT   TRANSMEM    284    305       7 (Potential).
FT   TOPO_DOM    306    361       Cytoplasmic (Potential).
FT   MOD_RES     329    329       Phosphoserine (By similarity).
FT   MOD_RES     330    330       Phosphoserine (By similarity).
FT   CARBOHYD    175    175       N-linked (GlcNAc. . .) (Potential).
FT   DISULFID    104    181       By similarity.
SQ   SEQUENCE   361 AA;  40894 MW;  0377F96E54B449A3 CRC64;

  Query Match             82.2%;  Score 1597;  DB 1;  Length 361;
  Best Local Similarity   82.7%;  Pred. No. 9.1e-107;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:|||||||:||||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56
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```
Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||| | |||| ||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| |||||||:|||||| |||:| |:|||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361
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RESULT 7
P2RY4_MOUSE
ID   P2RY4_MOUSE     STANDARD;      PRT;   361 AA.
AC   Q9JJS7;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   P2Y purinoceptor 4 (P2Y4).
GN   Name=P2ry4; Synonyms=P2y4r;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=129/SvJ;
RX   MEDLINE=21185993; PubMed=11290369; DOI=10.1016/S0014-2999(01)00875-5;
RA   Suarez-Huerta N., Pouillon V., Boeynaems J.-M., Robaye B.;
RT   "Molecular cloning and characterization of the mouse P2Y4 nucleotide
RT   receptor.";
RL   Eur. J. Pharmacol. 416:197-202(2001).
RN   [2]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   STRAIN=C57BL/6J; TISSUE=Skin;
RX   MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA   Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA   Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA   Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA   Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA   Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA   Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA   Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA   Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA   Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA   Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA   Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA   Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA   Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA   Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA   Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA   Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA   Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA   Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA   Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA   Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA   Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA   Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA   Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA   Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA   Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA   Birney E., Hayashizaki Y.;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
CC   -!- FUNCTION: Receptor for ATP and UTP coupled to G-proteins that
CC       activate a phosphatidylinositol-calcium second messenger system.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Expressed in the liver, intestine, stomach,
CC       bladder and lung.
CC   -!- PTM: Phosphorylation of Ser-329 and Ser-330 is a key step in
CC       agonist-dependent desensitization and loss of surface P2RY4. This
CC       phosphorylation does not involve PKC, nor other calcium-activated
CC       kinases (By similarity).
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; AJ277752; CAB91043.1; -; Genomic_DNA.
DR   EMBL; AK076364; BAC36314.1; -; mRNA.
DR   HSSP; P34996; 1DDD.
DR   Ensembl; ENSMUSG00000044359; Mus musculus.
DR   MGI; MGI:1926594; P2ry4.
DR   GO; GO:0016021; C:integral to membrane; TAS.
DR   GO; GO:0019103; F:pyrimidine nucleotide binding; IC.
DR   GO; GO:0045030; F:UTP-activated nucleotide receptor activity; IDA.
DR   GO; GO:0030321; P:transepithelial chloride transport; IDA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Phosphorylation; Receptor;
KW   Transducer; Transmembrane.
FT   TOPO_DOM      1     30       Extracellular (Potential).
FT   TRANSMEM     31     58       1 (Potential).
FT   TOPO_DOM     59     68       Cytoplasmic (Potential).
FT   TRANSMEM     69     91       2 (Potential).
FT   TOPO_DOM     92    108       Extracellular (Potential).
FT   TRANSMEM    109    127       3 (Potential).
FT   TOPO_DOM    128    149       Cytoplasmic (Potential).
FT   TRANSMEM    150    170       4 (Potential).
FT   TOPO_DOM    171    192       Extracellular (Potential).
FT   TRANSMEM    193    218       5 (Potential).
FT   TOPO_DOM    219    242       Cytoplasmic (Potential).
FT   TRANSMEM    243    265       6 (Potential).
FT   TOPO_DOM    266    283       Extracellular (Potential).
FT   TRANSMEM    284    305       7 (Potential).
FT   TOPO_DOM    306    361       Cytoplasmic (Potential).
FT   MOD_RES     329    329       Phosphoserine (By similarity).
FT   MOD_RES     330    330       Phosphoserine (By similarity).
FT   CARBOHYD    175    175       N-linked (GlcNAc. . .) (Potential).
FT   DISULFID    104    181       By similarity.
SQ   SEQUENCE   361 AA;  41034 MW;  3E8EA84B65BC0A20 CRC64;
```

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  Query Match             80.3%;  Score 1561;  DB 1;  Length 361;
  Best Local Similarity   80.8%;  Pred. No. 3.5e-104;
  Matches  295;  Conservative   20;  Mismatches   46;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | :| |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSADSLLPTSLGPSPSSGDG----DCKFNEEFKFILLPLSYAVVFVLGLALNAPTLWLF 56
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Qy          61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
               :|||||||||||||||||||||||||||||||:|||||  |||||||   ||||||||||||
Db          57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGFCKFVRFLFYWNLY 116

Qy         121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
               |||||||||||||:||||||||:||||||  ||||||  ||||||||||||||||||:  |
Db         117 CSVLFLTCISVHRYMGICHPLRAIRWGRPRFAGLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy         181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
               ||:|||||| ||||||||:|||  :|  |||| |  |:|||||||||||||:||||: |||||
Db         177 TTILCHDTTLPEEFDHYVYFSSTIMVLLFGFPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy         241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
               |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLNAECRVLNIVNVVYKVTRPLASANSC 296

Qy         301 LDPVLYLLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
               ||||||| |||||| ||:||| |  |: || |||||||:| |:|  |||   |||
Db         297 LDPVLYLFTGDKYRNQLQQLCRGSTPKRRTTASSLALVTLHEESISRWADIHQDSIFPAY 356

Qy         361 RADRL 365
                 |||
Db         357 EGDRL 361
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RESULT 8
Q5Y809_PIG
ID Q5Y809_PIG PRELIMINARY; PRT; 230 AA.
AC Q5Y809;
DT 25-OCT-2004 (TrEMBLrel. 28, Created)
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE P2Y4 nucleotide receptor (Fragment).
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC Sus.
OX NCBI_TaxID=9823;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RX PubMed=15280443; DOI=10.1124/mol.104.002642;
RA Shen J., Seye C.I., Wang M., Weisman G.A., Wilden P.A., Sturek M.;
RT "Cloning, Up-Regulation, and Mitogenic Role of Porcine P2Y2 Receptor
RT in Coronary Artery Smooth Muscle Cells.";
RL Mol. Pharmacol. 66:1265-1274(2004).
DR EMBL; AY662405; AAU89437.1; -; mRNA.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0045028; F:purinergic nucleotide receptor activity, G-. . .; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR GO; GO:0007165; P:signal transduction; IEA.
DR InterPro; IPR000276; GPCR_Rhodpsn.
DR InterPro; IPR002286; P2_purnocptor.
DR InterPro; IPR000018; P2Y4_purnocptor.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRRHODOPSN.
DR PRINTS; PR01066; P2Y4PRNOCPTR.
DR PRINTS; PR01157; P2YPURNOCPTR.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.
FT NON_TER 1 1
FT NON_TER 230 230
SQ SEQUENCE 230 AA; 26199 MW; 2EADDF1BF18C49E9 CRC64;

Query Match 60.5%; Score 1176; DB 2; Length 230;
Best Local Similarity 92.2%; Pred. No. 1.1e-76;
Matches 212; Conservative 11; Mismatches 7; Indels 0; Gaps 0;

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Qy          29 FDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSL 88
               ||||||||||||||||||||||||| ||:|||:|||||||||| ||||||||||||||||
Db           1 FDEDFKFILLPVSYAVVFVLGLGLNGPTIWLFLFRLRPWDATAIYMFHLALSDTLYVLSL 60

Qy          89 PTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGR 148
               |||:|||||  |||||||  :|||:|||||||||||||||||||||||||||||||||||
Db          61 PTLVYYYAARNHWPFGTGLCKFIRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGR 120

Qy         149 PRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFSSAVMGLL 208
               ||:| |||||||||||||||||||||||| || |:|||||||||||||||||||||||||
Db         121 PRIASLLCLAVWLVVAGCLVPNLFFVTTSTKGDTILCHDTTRPEEFDHYVHFSSAVMGLL 180

Qy         209 FGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCF 258
               |||||:|||||||||||||||||:||||:|:|||||||||||||||||
Db         181 FGVPCVVTLVCYGLMARRLYQPLPGAAQSSTRVRSLRTIAVVLTVFAVCF 230
```

RESULT 9
O57466_MELGA
ID O57466_MELGA PRELIMINARY; PRT; 374 AA.
AC O57466;
DT 01-JUN-1998 (TrEMBLrel. 06, Created)
DT 01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE G protein coupled P2Y nucleotide receptor.
GN Name=tp2y;
OS Meleagris gallopavo (Common turkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Meleagris.
OX NCBI_TaxID=9103;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE=Blood;
RX MEDLINE=98086419; PubMed=9415702;
RA Boyer J.L., Waldo G.L., Harden T.K.;
RT "Molecular cloning and expression of an avian G protein-coupled P2Y
RT receptor.";
RL Mol. Pharmacol. 52:928-934(1997).
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR EMBL; AF031897; AAC60339.1; -; mRNA.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0045028; F:purinergic nucleotide receptor activity, G-. . .; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR GO; GO:0007165; P:signal transduction; IEA.
DR InterPro; IPR000276; GPCR_Rhodpsn.
DR InterPro; IPR002286; P2_purnocptor.
DR InterPro; IPR000018; P2Y4_purnocptor.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRRHODOPSN.
DR PRINTS; PR01066; P2Y4PRNOCPTR.
DR PRINTS; PR01157; P2YPURNOCPTR.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ SEQUENCE 374 AA; 42594 MW; 849C465722BDD02B CRC64;

Query Match 58.0%; Score 1127.5; DB 2; Length 374;
Best Local Similarity 59.3%; Pred. No. 5.2e-73;
Matches 208; Conservative 56; Mismatches 70; Indels 17; Gaps 4;

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Qy           9 LRSLGLSP----------GPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
               :|   |:|          |  ::  |  | |:|:|||||||:|| :|||:|| ||:  :|
Db           5 VRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMW 64

Qy          59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
               :|: |:|||:|| ||||:||:|||||| |||||:|||| |:||||  || |||||| |
Db          65 IFVSRMRPWNATTTYMFNLAISDTLYVFSLPTLVYYYADRNNWPFGKVFCKIVRFLFYAN 124

Qy         119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
               || |:|||||||||:|||||:|:|:| : : | |:|: |||||  ||:||| |||||:
Db         125 LYSSILFLTCISVHRYMGICHPIRSLKWVKTKHARLICVGVWLVVTICLIPNLIFVTTSS 184

Qy         179 KGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSA 235
               |  : ||||||:||||||||||:||::| ||||:| || :||| |||:|| :   | |
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Db        185 KDNSTLCHDTTKPEEFDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRSFPSPSPR 244

Qy        236 QSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLA 295
              | : ||:: | :|||||:||||||||||:|| :|  :|||: |||:|  ||:|||||
Db        245 VPSYKKRSIKMIIIVLTVFAICFVPFHITRTLYYTSRYFQADCQTLNIINFTYKITRPLA 304

Qy        296 SANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASS-LALVSLPEDSS 345
              | ||||||:|| : ||||| :||:   |.  :||   :| |||||   |||
Db        305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352


RESULT 10
Q7ZZA4_BRARE
ID   Q7ZZA4_BRARE PRELIMINARY;      PRT;   347 AA.
AC   Q7ZZA4;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Novel protein similar to nucleotide receptors.
GN   Name=pr2y41; Synonyms=OTTDARP00000001909; ORFNames=bZ46J2.9-001;
OS   Brachydanio rerio (Zebrafish) (Danio rerio).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC   Cyprinidae; Danio.
OX   NCBI_TaxID=7955;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Skuce C.;
RL   Submitted (DEC-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; AL590151; CAD68067.1; -; Genomic_DNA.
DR   ZFIN; ZDB-GENE-030616-77; pr2y41.
DR   GO; GO:0016021; C:integral to membrane; IEA.
DR   GO; GO:0045028; F:purinergic nucleotide receptor activity, G-. . .; IEA.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR   GO; GO:0007165; P:signal transduction; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   347 AA;  39861 MW;  3D3C01F83CC283E2 CRC64;

  Query Match           53.4%;  Score 1038.5;  DB 2;  Length 347;
  Best Local Similarity  61.2%;  Pred. No. 1.2e-66;
  Matches  196;  Conservative   39;  Mismatches   82;  Indels    3;  Gaps    1;

Qy         20 SSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLAL 79
              | ||   | |||:||:|||||||::|   || ||:  ||:|| ::|||  :  |||||||
Db          5 SKEVNFSCTFDEEFKYILLPVSYSLVCFFGLILNSVALWMFITKMRPWKPSTVYMFHLAL 64

Qy         80 SDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICH 139
              |||||||||| ||||||  :|||||  :|| |||||| |||||:|||||||||||||||
Db         65 SDTLYVLSLPMLIYYYANRSHWPFGVVLCKIVRFLFYANLYCSILFLTCISVHRYLGICH 124

Qy        140 PLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVH 199
              |:|:|   :|| | ::|  ||  |  |||| |  | ||  | : |||||:||||| ::|
Db        125 PIRSLTLIKPRHAHMVCGFVWTAVIACLVPTLILVNTSRNGNSTLCHDTSRPEEFHNFVT 184

Qy        200 FSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSA---QSSSRLRSLRTIAVVLTVFAV 256
              ::| || ||| :| || :||| |||| | || .| |   |||||  :|:: | ||| |||:
Db        185 YNSVVMVLLFILPFLVIVVCYCLMARALCQPRKGLAQNQQSSSRKKSIKLIIVVLVVFAI 244

Qy        257 CFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQ 316
              ||||||||||:||  |: :|||: |||||  ||:|||||| |||||:|| | || || :
Db        245 CFVPFHITRTLYYAYRIFDADCKTLNIVNFSYKITRPLASVNSCLDPILYFLAGDHYRSK 304

Qy        317 LRQLCGGGKPQPRTAASSLA 336
              | ::      |  |: | |
Db        305 LLRVLTRQTPNTRSTAYEYA 324


RESULT 11
Q5BJ79_XENTR
ID   Q5BJ79_XENTR PRELIMINARY;      PRT;   543 AA.
AC   Q5BJ79;
DT   10-MAY-2005 (TrEMBLrel. 30, Created)
DT   10-MAY-2005 (TrEMBLrel. 30, Last sequence update)
DT   10-MAY-2005 (TrEMBLrel. 30, Last annotation update)
DE   Hypothetical protein.
OS   Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus; Silurana.
OX   NCBI_TaxID=8364;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Embryo;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Embryo;
RA   Klein S., Gerhard D.S.;
RL   Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; BC091589; AAH91589.1; -; mRNA.
DR   GO; GO:0016021; C:integral to membrane; IEA.
DR   GO; GO:0045028; F:purinergic nucleotide receptor activity, G-. . .; IEA.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR   GO; GO:0007165; P:signal transduction; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Hypothetical protein; Receptor;
KW   Transducer; Transmembrane.
SQ   SEQUENCE   543 AA;  62234 MW;  23BD2FD005C3B901 CRC64;

  Query Match           52.6%;  Score 1022.5;  DB 2;  Length 543;
  Best Local Similarity  53.7%;  Pred. No. 2.5e-65;
  Matches  196;  Conservative   54;  Mismatches   94;  Indels   21;  Gaps    5;
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```
Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||:   ||| :| | |    ::  |  | |:| |||:|||:||: ||::|| ||   :|:|
Db          6 MATLHPSLLTTLPL-PKNLTNNTEDSCVFNEGFKFLLLPISYSGVFMVGLPLNITAIWIF 64

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              | ::|||: |  |||:|||||||||||||||:|||| |:|||| :|| |||||| |||
Db         65 IAKMRPWNPTTVYMFNLALSDTLYVLSLPTLVYYYADQNNWPFGVALCKIVRFLFYANLY 124

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              |:||||||||||| |:|||:  ||    : | ::|  ||| |  |||||| ||| | |
Db        125 SSILFLTCISVHRYRGVCHPITTLRCMNAKHAHVICALVWLSVMLCLVPNLMFVTVSPKV 184

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPL-PGSAQS-- 237
              :||||| ||||| || :|: :| ||||:|||:   ||||||| | :||  |: |:
Db        185 NGTICHDTTLPEEFDKYVEYSTGIMCLLFGIPCLIIACCYGLMARELMKPLVNGNHQTLP 244

Qy        238 SSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASA 297
              | : ||::|| :|:  ||:||:|||||||:|| |||| :|  ||::|  |||:|||||
Db        245 SYKKRSIKTIVIVMIAFAICFMPFHITRTLYYYARLLGVNCYALNVINFTYKITRPLASA 304

Qy        298 NSCLDPVLYLLTGDKYRRQL----------RQLC-------GGGKPQPRTAASSLALVSL 340
              |||:||:|| |  |:|||:|          : |          :|:|      | :||
Db        305 NSCIDPILYFLANDRYRRRLIRTVRRSSVHHRRCMHTNHPGPHPEPEPHMTTGPLPVVSA 364

Qy        341 PEDSS 345
              | |
Db        365 EETQS 369
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RESULT 12
P2RY8_XENLA
ID   P2RY8_XENLA     STANDARD;      PRT;   537 AA.
AC   P79928;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   P2Y purinoceptor 8 (P2Y8).
GN   Name=P2RY8;
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Neural plate;
RX   MEDLINE=97284734; PubMed=9139711; DOI=10.1074/jbc.272.19.12583;
RA   Bogdanov Y.D., Dale L., King B.F., Whittock N., Burnstock G.;
RT   "Early expression of a novel nucleotide receptor in the neural plate
RT   of Xenopus embryos.";
RL   J. Biol. Chem. 272:12583-12590(1997).
CC   -!- FUNCTION: Receptor for extracellular ATP, UTP, CTP, GTP and ITP.
CC       The activity of this receptor is mediated by G proteins which
CC       activate a phosphatidylinositol-calcium second messenger system.
CC       May play a key role in the early development of neural tissue.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; X99953; CAA68213.1; -; mRNA.
DR   HSSP; P34996; 1DDD.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     49       Extracellular (Potential).
FT   TRANSMEM     50     70       1 (Potential).
FT   TOPO_DOM     71     79       Cytoplasmic (Potential).
FT   TRANSMEM     80    100       2 (Potential).
FT   TOPO_DOM    101    118       Extracellular (Potential).
FT   TRANSMEM    119    139       3 (Potential).
FT   TOPO_DOM    140    161       Cytoplasmic (Potential).
FT   TRANSMEM    162    182       4 (Potential).
FT   TOPO_DOM    183    210       Extracellular (Potential).
FT   TRANSMEM    211    231       5 (Potential).
FT   TOPO_DOM    232    254       Cytoplasmic (Potential).
FT   TRANSMEM    255    275       6 (Potential).
FT   TOPO_DOM    276    292       Extracellular (Potential).
FT   TRANSMEM    293    316       7 (Potential).
FT   TOPO_DOM    317    537       Cytoplasmic (Potential).
FT   CARBOHYD     26     26       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD     29     29       N-linked (GlcNAc. . .) (Potential).
FT   DISULFID    116    193       By similarity.
SQ   SEQUENCE   537 AA;  62024 MW;  B2CF24812F3C19F2 CRC64;

  Query Match             51.8%;  Score 1007.5;  DB 1;  Length 537;
  Best Local Similarity   55.9%;  Pred. No. 3e-64;
  Matches  190;  Conservative   50;  Mismatches   83;  Indels   17;  Gaps    4;

Qy         20 SSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLAL 79
              ::: |  | ||| |||:|||||: ||::|| ||   :|:|| ::|||: |  |||:|||
Db         28 TNDTEDICVFDEGFKFLLLPVSYSAVFMVGLPLNIAAMWIFIAKMRPWNPTTVYMFNLAL 87

Qy         80 SDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICH 139
              |||||||||||||:||||  |:||||  :|| |||||| ||| |:|||||||||||| |:||
Db         88 SDTLYVLSLPTLVYYYADKNNWPFGEVLCKLVRFLFYANLYSSILFLTCISVHRYRGVCH 147

Qy        140 PLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVH 199
              |: :||    : | ::|  ||| |  |||||| ||| | |    :||||||||:|  ||
Db        148 PITSLRRMNAKHAYVICALVWLSVTLCLVPNLIFVTVSPKVKNTICHDTTRPEDFARYVE 207

Qy        200 FSSAVMGLLFGVPCLVTLVCYGLMARRLYQPL-PGSAQS--SSRLRSLRTIAVVLTVFAV 256
              :|:|:| ||||:|||:   |||||  | | :|:  |: |:  | : ||::||  |:  ||:
Db        208 YSTAIMCLLFGIPCLIIAGCYGLMTRELMKPIVSGNQQTLPSYKKRSIKTIIFVMIAPAI 267

Qy        257 CFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQ 316
              ||:|||||:|| ||||    |  ||::|| |||||||||||||:||:|| |  |:|||:
Db        268 CFMPFHITRTLYYYARLLGIKCYALNVINVTYKVTRPLASANSCIDPILYFLANDRYRRR 327

Qy        317 L------------RQLCGGGKPQ--PRTAASSLALVSLPE 342
              |            |:     ||  |   |  | ::|  |
Db        328 LIRTVRRRSSVPNRRCMHTNHPQTEPHMTAGPLPVISAEE 367
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RESULT 13
Q7ZWQ7_XENLA
ID   Q7ZWQ7_XENLA PRELIMINARY;      PRT;   537 AA.
AC   Q7ZWQ7;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   P2ry4-prov protein.
GN   Name=p2ry4-prov;
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Embryo;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
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RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Embryo;
RX   MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA   Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA   Richardson P.;
RT   "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT   initiative.";
RL   Dev. Dyn. 225:384-391(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Embryo;
RA   Klein S., Strausberg R.;
RL   Submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).
DR   EMBL; BC046837; AAH46837.1; -; mRNA.
DR   GO; GO:0016021; C:integral to membrane; IEA.
DR   GO; GO:0045028; F:purinergic nucleotide receptor activity, G-. . .; IEA.
DR   GO; GO:0004872; F:receptor activity; IEA.
DR   GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR   GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR   GO; GO:0007165; P:signal transduction; IEA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ   SEQUENCE   537 AA;  61982 MW;  B030F67D76CB9622 CRC64;

  Query Match             51.8%;  Score 1007.5;  DB 2;  Length 537;
  Best Local Similarity   55.9%;  Pred. No. 3e-64;
  Matches  190;  Conservative   50;  Mismatches   83;  Indels   17;  Gaps    4;

Qy         20 SSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLAL 79
              ::: |  | ||| |||:|||||| ||::|| ||   :|:|| ::|||: |  |||:|||
Db         28 TNDTEDICVFDEGFKFLLLPVSYSAVFMVGLPLNIAAMWIFIAKMRPWNPTTVYMFNLAL 87

Qy         80 SDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICH 139
              |||||||||||||:||||  |:||||  :|| |||||| ||| |:|||||||||| |:||
Db         88 SDTLYVLSLPTLVYYYADKNNWPFGEVLCKLVRFLFYANLYSSILFLTCISVHRYRGVCH 147

Qy        140 PLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVH 199
              |: :||    : | ::|  ||| |  |||||| ||| | |    :||||||||:|  ||
Db        148 PITSLRRMNAKHAYVICALVWLSVTLCLVPNLIFVTVSPKVKNTICHDTTRPEDFARYVE 207

Qy        200 FSSAVMGLLFGVPCLVTLVCYGLMARRLYQPL-PGSAQS--SSRLRSLRTIAVVLTVFAV 256
              :|:|:| ||||:|||:    ||||| | | :|:  |: |:  | : ||::||  |:  ||:
Db        208 YSTAIMCLLFGIPCLIIAGCYGLMTRELMKPIVSGNQQTLPSYKKRSIKTIIFVMIAFAI 267

Qy        257 CFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQ 316
              ||:|||||||:|| ||||    |  ||::|| |||||||||||||:||:||  |:|||:
Db        268 CFMPFHITRTLYYYARLLGIKCYALNVINVTYKVTRPLASANSCIDPILYFLANDRYRRR 327

Qy        317 L------------RQLCGGGKPQ--PRTAASSLALVSLPE 342
              |            |:       ||  |    |  | ::|  |
Db        328 LIRTVRRRSSVPNRRCMHTNHPQTEPHMTAGPLPVISAEE 367


RESULT 14
Q4RP73_TETNG
ID   Q4RP73_TETNG PRELIMINARY;      PRT;   302 AA.
AC   Q4RP73;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Chromosome 1 SCAF15008, whole genome shotgun sequence.
DE   (Fragment).
GN   ORFNames=GSTENG00031240001;
OS   Tetraodon nigroviridis (Green puffer).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC   Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC   Tetradontoidea; Tetraodontidae; Tetraodon.
OX   NCBI_TaxID=99883;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Jaillon O., Aury J.M., Brunet F., Petit J.L., Stange-Thomann N.,
RA   Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
RA   Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
RA   Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
RA   Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
RA   Biemont C., Skalli Z., Cattolico L., Poulain J., De Berardinis V.,
RA   Cruaud C., Duprat S., Brottier P., Coutanceau J.P., Gouzy J.,
RA   Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
RA   Kellis M., Volff JN., Guigo R., Zody M.C., Mesirov J.,
RA   Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
RA   Laudet V., Schachter V., Quetier F., Saurin W., Scarpelli C.,
RA   Wincker P., Lander E.S., Weissenbach J., Roest Crollius H.;
RT   "Genome duplication in the teleost fish Tetraodon nigroviridis reveals
RT   the early vertebrate proto-karyotype.";
RL   Nature 431:946-957(2004).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RG   Genoscope; Whitehead Institute Centre for Genome Research;
RL   Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- CAUTION: The sequence shown here is derived from an
CC       EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
CC       preliminary data.
DR   EMBL; CAAE01015008; CAG09809.1; -; Genomic_DNA.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000018; P2Y4_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR01066; P2Y4PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Receptor; Transducer; Transmembrane.
FT   NON_TER       1      1
FT   NON_TER     302    302
SQ   SEQUENCE   302 AA;  34766 MW;  FC6B9F881EFB538D CRC64;

  Query Match             49.9%;  Score 970.5;  DB 2;  Length 302;
  Best Local Similarity   58.9%;  Pred. No. 8.1e-62;
  Matches  178;  Conservative   43;  Mismatches   76;  Indels    5;  Gaps    2;

Qy         20 SSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLAL 79
              :| :   | |||||||:||||||| :||| |  |||  ||||: ::|||:    ::|||||
Db          1 TSVINYSCRFDEDFKYILLPVSYGLVFVFGFILNATALWLFL-KMRPWNPNTVFLFHLAL 59

Qy         80 SDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICH 139
              || ||:|||||||||||| | |||||    || |||||| |||||:|||||||:||:||||
Db         60 SDFLYILSLPTLIYYYANHGHWPFGVAACKIVRFLFYVNLYCSILFLTCISVYRYVGICH 119
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Qy        140 PLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVH 199
              |::||   :|| : |:| :|| ||  |||||| ||||| :    ||||| || |  ||:
Db        120 PIKALNLVKPRHSYLVCASVWAVVIVCLVPNLIFVTTSRRDNITLCHDTTSPELFLQYVN 179

Qy        200 FSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQ----SSSRLRSLRTIAVVLTVFA 255
              : | ||  |||:| || :||| |||| | :|  | :     : |  ::|: | :|| :||
Db        180 YCSVVMVFLFGIPFLVIVVCYCLMARTLCRPRVGLSSRQQGAVSYQKTLKLIIMVLVMFA 239

Qy        256 VCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRR 315
              :||||||:|||:||:||| :  |  || :|  ||:|||   |||:||:|| | || ||
Db        240 MCFVPFHVTRTLYYVARLAKPSCDTLNAINFTYKITRPLVCVNSCVDPILYFLAGDSYRS 299

Qy        316 QL 317
              :|
Db        300 RL 301
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RESULT 15
P2RY2_HUMAN
ID   P2RY2_HUMAN    STANDARD;      PRT;   377 AA.
AC   P41231; Q96EM8;
DT   01-FEB-1995 (Rel. 31, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   P2Y purinoceptor 2 (P2Y2) (P2U purinoceptor 1) (P2U1) (ATP receptor)
DE   (Purinergic receptor).
GN   Name=P2RY2; Synonyms=P2RU1;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Airway epithelium;
RX   MEDLINE=94211846; PubMed=8159738;
RA   Parr C.E., Sullivan D.M., Paradiso A.M., Lazarowski E.R., Burch L.H.,
RA   Olsen J.C., Erb L., Weisman G.A., Boucher R.C., Turner J.T.;
RT   "Cloning and expression of a human P2U nucleotide receptor, a target
RT   for cystic fibrosis pharmacotherapy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:3275-3279(1994).
RN   [2]
RP   SEQUENCE REVISION.
RX   MEDLINE=95108098; PubMed=7809171;
RA   Parr C.E., Sullivan D.M., Paradiso A.M., Lazarowski E.R., Burch L.H.,
RA   Olsen J.C., Erb L., Weisman G.A., Boucher R.C., Turner J.T.;
RT   "Cloning and expression of a human P2U nucleotide receptor, a target
RT   for cystic fibrosis pharmacotherapy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:13067-13067(1994).
RN   [3]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=Placenta;
RA   Puhl H.L. III, Ikeda S.R., Aronstam R.S.;
RT   "cDNA clones of human proteins involved in signal transduction
RT   sequenced by the Guthrie cDNA resource center (www.cdna.org).";
RL   Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC   TISSUE=Kidney, and Leukocyte;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
CC   -!- FUNCTION: Receptor for ATP and UTP coupled to G-proteins that
CC       activate a phosphatidylinositol-calcium second messenger system.
CC       The affinity range is UTP = ATP > ATP-gamma-S >> 2-methylthio-ATP
CC       = ADP.
CC   -!- SUBCELLULAR LOCATION: Integral membrane protein.
CC   -!- TISSUE SPECIFICITY: Spleen, testis, kidney, liver, lung, heart and
CC       brain.
CC   -!- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; U07225; AAC04923.1; -; mRNA.
DR   EMBL; AY136753; AAN01279.1; -; mRNA.
DR   EMBL; BC012104; AAH12104.1; -; mRNA.
DR   EMBL; BC028135; AAH28135.1; -; mRNA.
DR   HSSP; P34996; 1DDD.
DR   Ensembl; ENSG00000175591; Homo sapiens.
DR   HGNC; HGNC:8541; P2RY2.
DR   H-InvDB; HIX0009916; -.
DR   MIM; 600041; -.
DR   GO; GO:0005887; C:integral to plasma membrane; TAS.
DR   GO; GO:0004872; F:receptor activity; TAS.
DR   GO; GO:0006873; P:cell ion homeostasis; TAS.
DR   GO; GO:0007200; P:G-protein signaling, coupled to IP3 second . . .; TAS.
DR   InterPro; IPR000276; GPCR_Rhodpsn.
DR   InterPro; IPR002286; P2_purnocptor.
DR   InterPro; IPR000356; P2U_purnocptor.
DR   Pfam; PF00001; 7tm_1; 1.
DR   PRINTS; PR00237; GPCRRHODOPSN.
DR   PRINTS; PR00594; P2Y2PRNOCPTR.
DR   PRINTS; PR01157; P2YPURNOCPTR.
DR   PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR   PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
KW   G-protein coupled receptor; Glycoprotein; Receptor; Transducer;
KW   Transmembrane.
FT   TOPO_DOM      1     32       Extracellular (Potential).
FT   TRANSMEM     33     59       1 (Potential).
FT   TOPO_DOM     60     70       Cytoplasmic (Potential).
FT   TRANSMEM     71     93       2 (Potential).
FT   TOPO_DOM     94    110       Extracellular (Potential).
FT   TRANSMEM    111    129       3 (Potential).
FT   TOPO_DOM    130    152       Cytoplasmic (Potential).
FT   TRANSMEM    153    172       4 (Potential).
FT   TOPO_DOM    173    194       Extracellular (Potential).
FT   TRANSMEM    195    220       5 (Potential).
FT   TOPO_DOM    221    246       Cytoplasmic (Potential).
FT   TRANSMEM    247    269       6 (Potential).
FT   TOPO_DOM    270    287       Extracellular (Potential).
FT   TRANSMEM    288    309       7 (Potential).
FT   TOPO_DOM    310    377       Cytoplasmic (Potential).
FT   CARBOHYD      9      9       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD     13     13       N-linked (GlcNAc. . .) (Potential).
FT   DISULFID    106    183       By similarity.
FT   CONFLICT    312    312       R -> S (in Ref. 4; AAH12104).
FT   CONFLICT    350    350       E -> G (in Ref. 1).
FT   CONFLICT    359    359       S -> F (in Ref. 1).
SQ   SEQUENCE   377 AA;  42290 MW;  EE557A857A269AC6 CRC64;

  Query Match           49.6%;  Score 965;  DB 1;  Length 377;
  Best Local Similarity 59.1%;  Pred. No. 2.5e-61;
  Matches  185;  Conservative   40;  Mismatches   86;  Indels    2;  Gaps    1;
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Qy          22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
               |:   | |:||||::|||||| || |||| |||  |::|: ||: |:|: |||||||:||
Db          20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVALYIFLCRLKTWNASTTYMFHLAVSD 79

Qy          82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
                ||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db          80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy         142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
               |:||||| | |  :  |||::|  |  | |:|||| :|  | |||: || |  :| :|
Db         140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARGGRVTCHDTSAPELFSRFVAYS 199

Qy         202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
               | ::|||| ||  | |||| |||||| :|  |::    |   :|:|||||| |||:||:
Db         200 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 259

Qy         260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
               |||:|||:||  | |:  |  || :|: ||||||||||||||||| | | :  |  |
Db         260 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTRPLASANSCLDPVLYFLAGQRLVRFARD 319

Qy         320 LCGGGKPQPRTAA 332
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Search completed: April 4, 2006, 20:14:09
Job time : 235 secs

GenCore version 5.1.7

OM protein - protein search, using sw model

Run on: April 4, 2006, 20:14:22 ; Search time 47 Seconds
(without alignments)
642.056 Million cell updates/sec

Title: US-10-811-198-2
Perfect score: 1944
Sequence: 1 MASTESSLLRSLGLSPGPGS.....CRWAATPQDSSCSTPRADRL 365

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2: /cgn2_6/ptodata/1/iaa/6_COMB.pep:*
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4: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1944	100.0	365	2	US-09-745-842-16	Sequence 16, Appl
2	1944	100.0	365	2	US-09-077-173D-2	Sequence 2, Appli
3	1127.5	58.0	374	2	US-09-745-842-15	Sequence 15, Appl
4	965	49.6	377	2	US-09-745-842-17	Sequence 17, Appl
5	960.5	49.4	373	2	US-08-513-974B-373	Sequence 373, App
6	955	49.1	374	2	US-09-102-710B-3	Sequence 3, Appli
7	934	48.0	375	1	US-08-442-134A-2	Sequence 2, Appli
8	934	48.0	375	1	US-08-444-581B-2	Sequence 2, Appli
9	934	48.0	375	1	US-08-446-088A-2	Sequence 2, Appli
10	934	48.0	375	1	US-08-559-524A-3	Sequence 3, Appli
11	934	48.0	375	2	US-08-749-707-3	Sequence 3, Appli
12	934	48.0	375	2	US-09-947-922-3	Sequence 3, Appli
13	641.5	33.0	373	2	US-09-745-842-14	Sequence 14, Appl
14	621	31.9	373	1	US-08-559-524A-4	Sequence 4, Appli
15	621	31.9	373	2	US-08-749-707-4	Sequence 4, Appli
16	621	31.9	373	2	US-09-947-922-4	Sequence 4, Appli
17	619	31.8	362	2	US-08-513-974B-374	Sequence 374, App
18	586	30.1	328	2	US-09-745-842-18	Sequence 18, Appl
19	584.5	30.1	327	2	US-08-513-974B-372	Sequence 372, App
20	584	30.0	328	2	US-08-513-974B-39	Sequence 39, Appl
21	584	30.0	328	2	US-08-513-974B-371	Sequence 371, App
22	584	30.0	328	2	US-09-461-436B-39	Sequence 39, Appl
23	576	29.6	328	2	US-08-513-974B-56	Sequence 56, Appl
24	576	29.6	328	2	US-08-513-974B-380	Sequence 380, App
25	576	29.6	328	2	US-09-461-436B-56	Sequence 56, Appl
26	571	29.4	328	2	US-08-459-046-2	Sequence 2, Appli
27	571	29.4	328	2	US-09-102-710B-2	Sequence 2, Appli
28	514	26.4	337	2	US-10-314-048A-28	Sequence 28, Appl
29	510	26.2	339	1	US-08-153-848-44	Sequence 44, Appl
30	510	26.2	339	1	US-08-812-871-3	Sequence 3, Appli
31	510	26.2	339	2	US-09-299-843A-44	Sequence 44, Appl
32	510	26.2	339	2	US-09-088-337B-44	Sequence 44, Appl
33	510	26.2	339	2	US-09-170-496D-32	Sequence 32, Appl
34	510	26.2	339	4	PCT-US93-11153-44	Sequence 44, Appl
35	510	26.2	339	4	PCT-US95-07180-2	Sequence 2, Appli
36	507	26.1	339	2	US-09-170-496D-182	Sequence 182, App
37	496.5	25.5	302	1	US-08-467-948A-30	Sequence 30, Appl
38	496.5	25.5	302	2	US-08-467-947A-30	Sequence 30, Appl
39	478.5	24.6	344	1	US-08-467-948A-8	Sequence 8, Appli
40	478.5	24.6	344	2	US-08-467-947A-8	Sequence 8, Appli
41	449.5	23.1	370	2	US-08-781-250-2	Sequence 2, Appli
42	424	21.8	395	1	US-08-097-938-2	Sequence 2, Appli
43	424	21.8	395	1	US-08-476-000-2	Sequence 2, Appli
44	424	21.8	395	1	US-08-472-840-2	Sequence 2, Appli
45	424	21.8	395	1	US-08-476-976-2	Sequence 2, Appli

ALIGNMENTS

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RESULT 1
US-09-745-842-16
; Sequence 16, Application US/09745842
; Patent No. 6762029
; GENERAL INFORMATION:
;  APPLICANT:  Conley, Pamela B.
;  APPLICANT:  Jantzen, Hans-Michael
;  APPLICANT:  Ramakrishnan-DuBridge, Vanitha
;  APPLICANT:  Julius, David
;  APPLICANT:  Hollopeter, Gunter
;  APPLICANT:  COR Therapeutics, Inc.
;  TITLE OF INVENTION:  P2Y12 Receptor
;  FILE REFERENCE:  44481-5053-US
;  CURRENT APPLICATION NUMBER: US/09/745,842
;  CURRENT FILING DATE:  2000-12-26
;  PRIOR APPLICATION NUMBER:  US 60/171,622
;  PRIOR FILING DATE:  1999-12-23
;  NUMBER OF SEQ ID NOS:  21
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 16
;   LENGTH: 365
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: P2Y4 pyrimidinergic receptor
US-09-745-842-16

  Query Match             100.0%;  Score 1944;  DB 2;  Length 365;
  Best Local Similarity   100.0%;  Pred. No. 6.5e-137;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
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Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
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Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 2
US-09-077-173D-2
; Sequence 2, Application US/09077173D
; Patent No. 6790626
; GENERAL INFORMATION:
;  APPLICANT: EUROSCREEN S.A.
;  APPLICANT:  COMMUNI, DIDIER
;  APPLICANT:  PIROTTON , SABINE
;  APPLICANT:  PARMENTIER, MARC
;  APPLICANT:  BOEYNAEMS, JEAN-MARIE
;  TITLE OF INVENTION: HUMAN PYRIMIDINE RECEPTOR
;  FILE REFERENCE: 9409/2112
;  CURRENT APPLICATION NUMBER: US/09/077,173D
;  CURRENT FILING DATE:  1998-11-12
;  PRIOR APPLICATION NUMBER: PCT/BE96/00123
;  PRIOR FILING DATE: 1996-11-21
;  PRIOR APPLICATION NUMBER: EPO 95870124.5
;  PRIOR FILING DATE: 1995-11-21
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
;   LENGTH: 365
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-077-173D-2

  Query Match           100.0%;  Score 1944;  DB 2;  Length 365;
  Best Local Similarity  100.0%;  Pred. No. 6.5e-137;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
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Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
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Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 3
US-09-745-842-15
; Sequence 15, Application US/09745842
; Patent No. 6762029
; GENERAL INFORMATION:
;  APPLICANT:  Conley, Pamela B.
;  APPLICANT:  Jantzen, Hans-Michael
;  APPLICANT:  Ramakrishnan-DuBridge, Vanitha
;  APPLICANT:  Julius, David
;  APPLICANT:  Hollopeter, Gunter
;  APPLICANT:  COR Therapeutics, Inc.
;  TITLE OF INVENTION:  P2Y12 Receptor
;  FILE REFERENCE:  44481-5053-US
;  CURRENT APPLICATION NUMBER: US/09/745,842
;  CURRENT FILING DATE:  2000-12-26
;  PRIOR APPLICATION NUMBER:  US 60/171,622
;  PRIOR FILING DATE:  1999-12-23
;  NUMBER OF SEQ ID NOS:  21
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 374
;   TYPE: PRT
;   ORGANISM: Meleagris gallopavo
;   FEATURE:
;   OTHER INFORMATION: Turkey P2Y nucleotide receptor; tp2ynovel
US-09-745-842-15

  Query Match           58.0%;  Score 1127.5;  DB 2;  Length 374;
  Best Local Similarity  59.3%;  Pred. No. 2.8e-76;
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Qy          9 LRSLGLSP----------GPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
              :|   |:|          |  ::  |  | |:|:|||||||:|| :|||:|| ||:  :|
Db          5 VRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMW 64

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
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Db         65 IFVSRMRPWNATTTYMFNLAISDTLYVFSLPTLVYYYADRNNWPFGKVFCKIVRFLFYAN 124

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              || |:|||||||||||:|||||:|:|:| : : | |:|: |||||  ||:||| |||||:
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Qy        179 KGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSA 235
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Db        185 KDNSTLCHDTTKPEEFDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRSFPSPSPR 244

Qy        236 QSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLA 295
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Db        245 VPSYKKRSIKMIIIVLTVFAICFVPFHITRTLYYTSRYFQADCQTLNIINFTYKITRPLA 304

Qy        296 SANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASS-LALVSLPEDSS 345
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Db        305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352


RESULT 4
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; Sequence 17, Application US/09745842
; Patent No. 6762029
; GENERAL INFORMATION:
;  APPLICANT:  Conley, Pamela B.
;  APPLICANT:  Jantzen, Hans-Michael
;  APPLICANT:  Ramakrishnan-DuBridge, Vanitha
;  APPLICANT:  Julius, David
;  APPLICANT:  Hollopeter, Gunter
;  APPLICANT:  COR Therapeutics, Inc.
;  TITLE OF INVENTION:  P2Y12 Receptor
;  FILE REFERENCE:  44481-5053-US
;  CURRENT APPLICATION NUMBER: US/09/745,842
;  CURRENT FILING DATE:  2000-12-26
;  PRIOR APPLICATION NUMBER:  US 60/171,622
;  PRIOR FILING DATE:  1999-12-23
;  NUMBER OF SEQ ID NOS:  21
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 17
;   LENGTH: 377
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;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: P2Y2 purinergic receptor; p2ur
US-09-745-842-17

  Query Match            49.6%;  Score 965;  DB 2;  Length 377;
  Best Local Similarity  59.1%;  Pred. No. 3.2e-64;
  Matches  185;  Conservative   40;  Mismatches   86;  Indels    2;  Gaps    1;

Qy        .22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVALYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARGGRVTCHDTSAPELFSRFVAYS 199

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
Db        200 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 259

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
Db        260 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTRPLASANSCLDPVLYFLAGQRLVRFARD 319

Qy        320 LCGGGKPQPRTAA 332
Db        320 AKPPTGPSPATPA 332


RESULT 5
US-08-513-974B-373
; Sequence 373, Application US/08513974B
; Patent No. 6114139
;  GENERAL INFORMATION:
;    APPLICANT:  Hinuma, Shuji
;    APPLICANT:  Hosoya, Masaki
;    APPLICANT:  Fujii, Ryo
;    APPLICANT:  Ohtaki, Tetsuya
;    APPLICANT:  Fukusumi, Shoji
;    APPLICANT:  Ohgi, Kazuhiro
;    TITLE OF INVENTION:  G PROTEIN COUPLED RECEPTOR PROTEIN,
;    TITLE OF INVENTION:  PRODUCTION, AND USE THEREOF
;    NUMBER OF SEQUENCES:  380
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP
;      STREET:  130 Water Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/513,974B
;      FILING DATE:  14-SEP-1995
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/JP95/01599
;      FILING DATE:  10-AUG-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 7-093989
;      FILING DATE:  19-AUG-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 7-057186
;      FILING DATE:  16-MAR-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 7-007177
;      FILING DATE:  20-JAN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-326611
;      FILING DATE:  28-DEC-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-270017
;      FILING DATE:  02-NOV-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-236357
;      FILING DATE:  30-SEP-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-236356
;      FILING DATE:  30-SEP-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-189274
;      FILING DATE:  11-AUG-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-189273
;      FILING DATE:  11-AUG-1945
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  JP 6-189272
;      FILING DATE:  11-AUG-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Resnick, David S.
;      REGISTRATION NUMBER:  34,235
;      REFERENCE/DOCKET NUMBER:  45753
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-523-3400
;      TELEFAX:  617-523-6440
;  INFORMATION FOR SEQ ID NO:  373:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  373 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-513-974B-373

  Query Match            49.4%;  Score 960.5;  DB 2;  Length 373;
  Best Local Similarity  53.7%;  Pred. No. 6.9e-64;
  Matches  188;  Conservative   46;  Mismatches   97;  Indels   19;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
Db         20 ELGYKCRFNEDFKYVLLPVSYGVVCVLGLCLNVVALYIPLCRLKIWNASTTYMPHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
Db         80 SLYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
Db        140 HSLRWGRARYARRVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYS 199

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
Db        200 SVMLGLLFAVPFSVILVCYVLMARRLLKPAYGTTGGLPRAKRKSVRTIALVLAVFALCFL 259

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
Db        260 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKITRPLASANSCLDPVLYFLAGQRLVRFARD 319

Qy        320 LCGGGKPQP----------RTAASSLALVSLPEDSSCRWAATPQDS 355
Db        320 AKPPTEPTPSPQARRKLGLHRPNRTVRKDL---SVSSDDSRRTESTPAGS 366


RESULT 6
US-09-102-710B-3
; Sequence 3, Application US/09102710B
```

```
; Patent No. 6479630
; GENERAL INFORMATION:
;  APPLICANT: Coleman, Roger
;  APPLICANT:  Au-Young, Janice
;  APPLICANT:  Stuart, Susan G.
;  TITLE OF INVENTION: A NOVEL HUMAN PURINERGIC P2U RECEPTOR
;  FILE REFERENCE: PF-0038-1 DIV
;  CURRENT APPLICATION NUMBER: US/09/102,710B
;  CURRENT FILING DATE:  1998-06-22
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: PERL Program
; SEQ ID NO 3
;   LENGTH: 374
;   TYPE: PRT
;   ORGANISM: Rattus norvegius
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: RNU09402
US-09-102-710B-3

  Query Match             49.1%;  Score 955;  DB 2;  Length 374;
  Best Local Similarity   53.2%;  Pred. No. 1.8e-63;
  Matches  185;  Conservative   50;  Mismatches   99;  Indels   14;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:    | |:||||::|||||| || |||| ||   |::|: ||: |:|: |||||||:||
Db         20 ELGYKCRFNEDFKYVLLPVSYGVVCVLGLCLNVVALYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
              :||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 SLYAASLPLLVYYYAQGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRSLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
               :||||  | |  :   ||::|  |  | |:|||||  :|| : ||||:  | | |:| :|
Db        140 HSLRWGHARYARRVAAVVWVLVLACQTPVLYFVTTSVRGTRITCHDTSDRELFSHFVAYS 199

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPG-SAQSSSRLRSLRTIAVVLTVFAVCFVP 260
              | ::|||| ||  : |||| ||||||  :|  | :    :: :|:||||:|| |||:||:|
Db        200 SVMLGLLFAVPFSIILVCYVLMARRLLKPAYGTTGLPRAKRKSVRTIALVLAVFALCFLP 259

Qy        261 FHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQL 320
              ||:|||:||  | |:  |  || :|: ||:|||||||||||||| | | :  |  |
Db        260 FHVTRTLYYSFRSLDLSCHTLNAINMAYKITRPLASANSCLDPVLYFLAGQRLVRFARDA 319

Qy        321 CGGGKPQPR-TAASSLAL-----------VSLPEDSSCRWAATPQDS 355
                :| |   |   | |             :|:  | | |  :||  |
Db        320 KPATEPTPSPQARRKLGLHRPNRTDTVRKDLSISSDDSRRTESTPAGS 367


RESULT 7
US-08-442-134A-2
; Sequence 2, Application US/08442134A
; Patent No. 5596088
;  GENERAL INFORMATION:
;    APPLICANT:  Boucher, Richard C.
;    APPLICANT:  Weisman, Gary A.
;    APPLICANT:  Turner, John T.
;    APPLICANT:  Harden, Thomas K.
;    APPLICANT:  Parr, Claude E.
;    APPLICANT:  Sullivan, Daniel M.
;    APPLICANT:  Erb, Laura
;    APPLICANT:  Lustig, Kevin D.
;    TITLE OF INVENTION:  DNA Encoding the Human P2U Receptor and
;    TITLE OF INVENTION:  Null Cells Expressing P2U Receptors
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bell, Seltzer, Park & Gibson
;      STREET:  Post Office Drawer 34009
;      CITY:  Charlotte
;      STATE:  No. 5596088th Carolina
;      COUNTRY:  USA
;      ZIP:  28234
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/442,134A
;      FILING DATE:  16-MAY-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Sibley, Kenneth D.
;      REGISTRATION NUMBER:  31,665
;      REFERENCE/DOCKET NUMBER:  5470-71A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  919-420-2200
;      TELEFAX:  919-881-3175
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  375 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-442-134A-2

  Query Match             48.0%;  Score 934;  DB 1;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 6.4e-62;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:    | |:||||::|||||| || |||| |||   |::|: ||: |:|: |||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
               ||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:||||| | |  :  |||::|  |  | |:|||||  :|  : ||||: || |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| ||||||  :|  |::    |   :|:||||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||||| |||||||||||| | | :  |  |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
                | | | |
Db        318 AKPPTGPSPATPA 330


RESULT 8
US-08-444-581B-2
; Sequence 2, Application US/08444581B
; Patent No. 5607836
;  GENERAL INFORMATION:
;    APPLICANT:  Boucher, Richard C.
;    APPLICANT:  Weisman, Gary A.
;    APPLICANT:  Turner, John T.
;    APPLICANT:  Harden, Thomas K.
;    APPLICANT:  Parr, Claude E.
;    APPLICANT:  Sullivan, Daniel M.
;    APPLICANT:  Erb, Laura
;    APPLICANT:  Lustig, Kevin D.
;    TITLE OF INVENTION:  DNA Encoding the Human P2U Receptor and
;    TITLE OF INVENTION:  Null Cells Expressing P2U Receptors
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bell, Seltzer, Park & Gibson
;      STREET:  Post Office Drawer 34009
;      CITY:  Charlotte
;      STATE:  No. 5607836th Carolina
```

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;       COUNTRY:  USA
;       ZIP:  28234
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/444,581B
;       FILING DATE:  19-MAY-1995
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/442,134
;       FILING DATE:  16-MAY-1995
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Sibley, Kenneth D.
;       REGISTRATION NUMBER:  31,665
;       REFERENCE/DOCKET NUMBER:  5470-71A
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  919-420-2200
;       TELEFAX:  919-881-3175
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  375 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-08-444-581B-2

  Query Match             48.0%;  Score 934;  DB 1;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 6.4e-62;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:   | |:||||::|||||| || |||| |||  |::|: ||: |:|: |||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
               ||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:||||| | |  :  |||::|  |  | |:||||| :|  : ||||: || |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| || | |||| |||||| :|  |::   |   :|:|||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||||| |||||||||||| | | :  |  |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
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Db        318 AKPPTGPSPATPA 330


RESULT 9
US-08-446-088A-2
; Sequence 2, Application US/08446088A
; Patent No. 5691156
;  GENERAL INFORMATION:
;     APPLICANT:  Boucher, Richard C.
;     APPLICANT:  Weisman, Gary A.
;     APPLICANT:  Turner, John T.
;     APPLICANT:  Harden, Thomas K.
;     APPLICANT:  Parr, Claude E.
;     APPLICANT:  Sullivan, Daniel M.
;     APPLICANT:  Erb, Laura
;     APPLICANT:  Lustig, Kevin D.
;     TITLE OF INVENTION:  DNA Encoding the Human P2U Receptor and
;     TITLE OF INVENTION:  Null Cells Expressing P2U Receptors
;     NUMBER OF SEQUENCES:  8
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  Bell, Seltzer, Park & Gibson
;       STREET:  Post Office Drawer 34009
;       CITY:  Charlotte
;       STATE:  No. 5691156th Carolina
;       COUNTRY:  USA
;       ZIP:  28234
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/446,088A
;       FILING DATE:  19-MAY-1995
;       CLASSIFICATION:  435
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Kenneth D. Sibley
;       REGISTRATION NUMBER:  31,665
;       REFERENCE/DOCKET NUMBER:  5470-71C
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  919-420-2200
;       TELEFAX:  919-881-3175
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  375 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-08-446-088A-2

  Query Match             48.0%;  Score 934;  DB 1;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 6.4e-62;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:   | |:||||::|||||| || |||| |||  |::|: ||: |:|: |||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
               ||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:||||| | |  :  |||::|  |  | |:||||| :|  : ||||:.|| |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| |||||| :|  |::  .|   :|:|||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||||| |||||||||||| | | :. |  |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
                 | | | |
Db        318 AKPPTGPSPATPA 330


RESULT 10
US-08-559-524A-3
; Sequence 3, Application US/08559524A
; Patent No. 5871963
;  GENERAL INFORMATION:
;     APPLICANT:  Conley, Pamela B.
;     APPLICANT:  Jantzen, Hans-Michael
;     TITLE OF INVENTION:  NOVEL PURINERGIC RECEPTOR
;     NUMBER OF SEQUENCES:  14
;     CORRESPONDENCE ADDRESS:
;       ADDRESSEE:  MORGAN, LEWIS & BOCKIUS LLP
;       STREET:  1800 M Street, N.W.
```

```
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20036-5869
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/559,524A
;      FILING DATE:  15-NOV-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Adler, Reid G.
;      REGISTRATION NUMBER:  30,988
;      REFERENCE/DOCKET NUMBER:  044481-5010-00-US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-467-7000
;      TELEFAX:  202-467-7176
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  375 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-559-524A-3

  Query Match             48.0%;  Score 934;  DB 1;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 6.4e-62;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:    | |:||||::||||||  || ||||  |||  |::|: ||: |:|: ||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
               ||  ||| |:||||  :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:||||| | |   :  |||::|  |  | |:||||| :|  : ||||: || |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| |||||| :|  |::    |   :|:|||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||||| |||||||||||| | | :  |  |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
                | | | |
Db        318 AKPPTGPSPATPA 330


RESULT 11
US-08-749-707-3
; Sequence 3, Application US/08749707
; Patent No. 6063582
;  GENERAL INFORMATION:
;    APPLICANT:  Conley, Pamela B.
;    APPLICANT:  Jantzen, Hans-Michael
;    TITLE OF INVENTION:  NOVEL PURINERGIC RECEPTOR
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORGAN, LEWIS & BOCKIUS LLP
;      STREET:  1800 M Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20036-5869
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/749,707
;      FILING DATE:  15-NOV-1996
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Adler, Reid G.
;      REGISTRATION NUMBER:  30,988
;      REFERENCE/DOCKET NUMBER:  044481-5010-01-US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-467-7000
;      TELEFAX:  202-467-7176
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  375 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-749-707-3

  Query Match             48.0%;  Score 934;  DB 2;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 6.4e-62;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:    | |:||||::||||||  || ||||  |||  |::|: ||: |:|: ||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
               ||  ||| |:||||  :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:||||| | |   :  |||::|  |  | |:||||| :|  : ||||: || |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| |||||| :|  |::    |   :|:|||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||||| |||||||||||| | | :  |  |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
                | | | |
Db        318 AKPPTGPSPATPA 330


RESULT 12
US-09-947-922-3
; Sequence 3, Application US/09947922
; Patent No. 6680373
;  GENERAL INFORMATION:
;       APPLICANT: Conley, Pamela B.
;                  Jantzen, Hans-Michael
;       TITLE OF INVENTION: NOVEL PURINERGIC RECEPTOR
;       NUMBER OF SEQUENCES: 14
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
;            STREET: 1800 M Street, N.W.
;            CITY: Washington
;            STATE: D.C.
;            COUNTRY: USA
;            ZIP: 20036-5869
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
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;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/947,922
;             FILING DATE: 07-Sep-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/749,707
;             FILING DATE: 15-NOV-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Adler, Reid G.
;             REGISTRATION NUMBER: 30,988
;             REFERENCE/DOCKET NUMBER: 044481-5010-01-US
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 202-467-7000
;             TELEFAX: 202-467-7176
;   INFORMATION FOR SEQ ID NO: 3:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 375 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: <Unknown>
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-947-922-3

  Query Match             48.0%;  Score 934;  DB 2;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 6.4e-62;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:    | |:||||::|||||| || |||| |||  |::|: ||: |:|: |||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
                ||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:||||| | |  :  |||::|  |  | |:||||| :|  : ||||: || |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| |||||| :|  |::    |  :|:|||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||||| |||||||||||| | | :  |  |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
                 |:| | |
Db        318 AKPPTGPSPATPA 330


RESULT 13
US-09-745-842-14
; Sequence 14, Application US/09745842
; Patent No. 6762029
; GENERAL INFORMATION:
;  APPLICANT:  Conley, Pamela B.
;  APPLICANT:  Jantzen, Hans-Michael
;  APPLICANT:  Ramakrishnan-DuBridge, Vanitha
;  APPLICANT:  Julius, David
;  APPLICANT:  Hollopeter, Gunter
;  APPLICANT:  COR Therapeutics, Inc.
;  TITLE OF INVENTION:  P2Y12 Receptor
;  FILE REFERENCE:  44481-5053-US
;  CURRENT APPLICATION NUMBER: US/09/745,842
;  CURRENT FILING DATE:  2000-12-26
;  PRIOR APPLICATION NUMBER:  US 60/171,622
;  PRIOR FILING DATE:  1999-12-23
;  NUMBER OF SEQ ID NOS:  21
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 14
;   LENGTH: 373
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: P2Y1 purinergic receptor; p2yr
US-09-745-842-14

  Query Match             33.0%;  Score 641.5;  DB 2;  Length 373;
  Best Local Similarity   40.0%;  Pred. No. 3.3e-40;
  Matches  140;  Conservative   60;  Mismatches  121;  Indels   29;  Gaps    9;

Qy         17 GPGSS-----------EVELDCWFDE-DFKFILLPVSYAVVFVLGLGLNAPTLWLFIFR 63
              |||||                |   :  |:|  ||  | :||::|   |:  :|:|:|
Db         20 GPGSSWGNSTVASTAAVSSSFKCALTKTGFQFYYLPAVYILVFIIGFLGNSVAIWMFVFH 79

Qy         64 LRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSV 123
              ::||   : |||:|||:| ||||:|| ||:||      | ||  :||  ||:|: ||| |:
Db         80 MKPWSGISVYMFNLALADFLYVLTLPALIFYYFNKTDWIFGDAMCKLQRFIFHVNLYGSI 139

Qy        124 LFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLA--VWLVVAGCLVPNLFFVTTS-NKG 180
              ||||||| ||| |: :||::|  || :    :|::  |||:|   : | ||:  |   |
Db        140 LFLTCISAHRYSGVVYPLKSL--GRLKKKNAICISVLVWLIVVVAISPILFYSGTGVRKN 197

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRL-YQPLPGSAQSSS 239
              |: |:|||  |    |  :|      :| || :: | ||||: | | |: |      |
Db        198 KTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLVLILGCYGLIVRALIYKDLD---NSPL 254

Qy        240 RLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARL---LEADCRVLNIVNVVYKVTRPLAS 296
              | :|:  : :||||||| ::|||: :|:   |||      | |   : |   |:||| |||
Db        255 RRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARLDFQTPAMCAFNDRVYATYQVTRGLAS 314

Qy        297 ANSCLDPVLYLLTGDKYRRQL----RQLCGGGKPQPRTAASSLALVSLPE 342
              |||:||:|| | || :||:|    |:      :   :: :  : |  |||
Db        315 LNSCVDPILYFLAGDTFRRRLSRATRKASRRSEANLQSKSEDMTLNILPE 364


RESULT 14
US-08-559-524A-4
; Sequence 4, Application US/08559524A
; Patent No. 5871963
;  GENERAL INFORMATION:
;    APPLICANT:  Conley, Pamela B.
;    APPLICANT:  Jantzen, Hans-Michael
;    TITLE OF INVENTION:  NOVEL PURINERGIC RECEPTOR
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORGAN, LEWIS & BOCKIUS LLP
;      STREET:  1800 M Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20036-5869
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/559,524A
;      FILING DATE:  15-NOV-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Adler, Reid G.
;      REGISTRATION NUMBER:  30,988
;      REFERENCE/DOCKET NUMBER:  044481-5010-00-US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-467-7000
;      TELEFAX:  202-467-7176
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
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; LENGTH: 373 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-559-524A-4

Query Match 31.9%; Score 621; DB 1; Length 373;
Best Local Similarity 43.4%; Pred. No. 1.1e-38;
Matches 126; Conservative 53; Mismatches 103; Indels 8; Gaps 4;

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Qy         33 FKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLI 92
              |:|  ||  | :||::|   |:  :|:|:| ::||   : |||:|||:| ||||:|| ||
Db         49 FQFYYLPAVYILVFIIGFLGNSVAIWMFVFHMKPWSGISVYMFNLALADFLYVLTLPALI 108

Qy         93 YYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLA 152
              :||      | ||  :||  ||:|: ||| |:|||||| ||| |: :||::|   : : |
Db        109 FYYFNKTDWIFGDAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVVYPLKSLGRLKKKNA 168

Qy        153 GLLCLAVWLVVAGCLVPNLFFVTTS-NKGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGV 211
                : : |||:|   : | ||:  |   |  |: |:|||  |    | :|      :| |
Db        169 VYISVLVWLIVVVGISPILFYSGTGIRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCV 228

Qy        212 PCLVTLVCYGLMARRL-YQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYL 270
              | :: | ||||: | | |: |     |  | :|:  : :||||||| ::|||: :|:
Db        229 PLVLILGCYGLIVRALIYKDLD---NSPLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLR 285

Qy        271 ARL---LEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQL 317
              |||       |   : |   |:||| ||| |||:||:|| | || :||:|
Db        286 ARLDFQTPEMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
```

RESULT 15
US-08-749-707-4
; Sequence 4, Application US/08749707
; Patent No. 6063582
; GENERAL INFORMATION:
; APPLICANT: Conley, Pamela B.
; APPLICANT: Jantzen, Hans-Michael
; TITLE OF INVENTION: NOVEL PURINERGIC RECEPTOR
; NUMBER OF SEQUENCES: 14
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MORGAN, LEWIS & BOCKIUS LLP
; STREET: 1800 M Street, N.W.
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20036-5869
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/749,707
; FILING DATE: 15-NOV-1996
; CLASSIFICATION: 536
; ATTORNEY/AGENT INFORMATION:
; NAME: Adler, Reid G.
; REGISTRATION NUMBER: 30,988
; REFERENCE/DOCKET NUMBER: 044481-5010-01-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-467-7000
; TELEFAX: 202-467-7176
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 373 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-749-707-4

Query Match 31.9%; Score 621; DB 2; Length 373;
Best Local Similarity 43.4%; Pred. No. 1.1e-38;
Matches 126; Conservative 53; Mismatches 103; Indels 8; Gaps 4;

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Qy         33 FKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLI 92
              |:|  ||  | :||::|   |:  :|:|:| ::||   : |||:|||:| ||||:|| ||
Db         49 FQFYYLPAVYILVFIIGFLGNSVAIWMFVFHMKPWSGISVYMFNLALADFLYVLTLPALI 108

Qy         93 YYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLA 152
              :||      | ||  :||  ||:|: ||| |:|||||| ||| |: :||::|   : : |
Db        109 FYYFNKTDWIFGDAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVVYPLKSLGRLKKKNA 168

Qy        153 GLLCLAVWLVVAGCLVPNLFFVTTS-NKGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGV 211
                : : |||:|   : | ||:  |   |  |: |:|||  |    | :|      :| |
Db        169 VYISVLVWLIVVVGISPILFYSGTGIRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCV 228

Qy        212 PCLVTLVCYGLMARRL-YQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYL 270
              | :: | ||||: | | |: |     |  | :|:  : :||||||| ::|||: :|:
Db        229 PLVLILGCYGLIVRALIYKDLD---NSPLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLR 285

Qy        271 ARL---LEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQL 317
              |||       |   : |   |:||| ||| |||:||:|| | || :||:|
Db        286 ARLDFQTPEMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335
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Search completed: April 4, 2006, 20:15:48
Job time : 48 secs

GenCore version 5.1.7

OM protein - protein search, using sw model

Run on: April 4, 2006, 20:10:27 ; Search time 41 Seconds
(without alignments)
856.564 Million cell updates/sec

Title: US-10-811-198-2
Perfect score: 1944
Sequence: 1 MASTESSLLRSLGLSPGPGS.....CRWAATPQDSSCSTPRADRL 365

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1944	100.0	365	2	S68679	G protein-coupled
2	962.5	49.5	373	2	A47556	ATP receptor P2u -
3	934	48.0	375	2	A54946	P-2U nucleotide re
4	641.5	33.0	373	2	JC4737	G protein-coupled
5	628	32.3	362	2	S33733	G protein-coupled
6	621	31.9	373	2	JC4162	P2Y receptor - bov
7	588	30.2	328	2	I55450	G protein-coupled
8	586	30.1	328	2	JC4800	P2Y6 receptor - hu
9	501.5	25.8	308	2	I50241	G protein-coupled
10	479.5	24.7	344	2	T09508	intron 17 purinerg
11	450.5	23.2	370	2	JC5549	heptahelical P2Y5-
12	423	21.8	399	2	I48705	proteinase activat
13	411.5	21.2	420	2	I51667	thrombin receptor
14	403	20.7	397	2	S66518	proteinase-activat
15	400	20.6	372	2	I38532	delta opioid recep
16	397.5	20.4	425	2	A37912	thrombin receptor
17	388.5	20.0	427	2	S17148	alpha-thrombin rec
18	388	20.0	432	2	A43448	thrombin receptor
19	385	19.8	372	2	S34592	delta opioid recep
20	383	19.7	361	2	B45680	G protein-coupled
21	382.5	19.7	362	2	JN0694	angiotensin II rec
22	381.5	19.6	398	2	I56504	mu opioid receptor
23	378.5	19.5	392	2	S65693	opioid receptor mu
24	378.5	19.5	400	2	I56553	mu opiate receptor
25	377	19.4	372	2	B48227	delta opioid recep
26	376.5	19.4	398	2	I56517	mu opioid receptor
27	371.5	19.1	342	2	A40191	platelet-activatin
28	371.5	19.1	398	2	A57510	mu opioid receptor
29	370.5	19.1	359	2	JC5277	G protein-coupled
30	369.5	19.0	359	2	JH0621	angiotensin II rec
31	366	18.8	363	2	I57955	somatostatin recep
32	366	18.8	364	2	JN0763	somatostatin recep
33	364.5	18.8	359	2	JC2134	angiotensin II rec
34	363	18.7	359	2	A42656	angiotensin II rec
35	362	18.6	362	2	S68207	G protein-coupled
36	361	18.6	354	2	I53033	G protein-coupled
37	360.5	18.5	359	2	S44425	angiotensin II rec
38	360	18.5	359	2	JC1104	angiotensin II rec
39	359	18.5	362	2	A57641	G protein-coupled
40	358.5	18.4	359	2	S15403	angiotensin II rec
41	357	18.4	380	2	S36143	kappa opioid recep
42	356	18.3	359	2	A48857	angiotensin II rec
43	356	18.3	380	2	JC2338	kappa opioid recep
44	355	18.3	359	2	I39418	angiotensin II rec
45	355	18.3	380	2	A55259	kappa opioid recep

ALIGNMENTS

RESULT 1
S68679
G protein-coupled receptor - human
C;Species: Homo sapiens (man)
C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S68679
R;Stam, N.J.; Klomp, J.; van de Heuvel, M.; Olijve, W.
FEBS Lett. 384, 260-264, 1996
A;Title: Molecular cloning and characterization of a novel orphan receptor (P(2P)) exp
A;Reference number: S68679; MUID:96197801; PMID:8617367
A;Accession: S68679
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-365 <STA>
A;Cross-references: UNIPROT:P51582; UNIPARC:UPI000002E776; EMBL:X96597; NID:g1296631;
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor

Query Match 100.0%; Score 1944; DB 2; Length 365;
Best Local Similarity 100.0%; Pred. No. 9.8e-165;
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLPLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLPLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365
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RESULT 2

```
A47556
ATP receptor P2u - mouse
C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C;Accession: A47556
R;Lustig, K.D.; Shiau, A.K.; Brake, A.J.; Julius, D.
Proc. Natl. Acad. Sci. U.S.A. 90, 5113-5117, 1993
A;Title: Expression cloning of an ATP receptor from mouse neuroblastoma cells.
A;Reference number: A47556; MUID:93281707; PMID:7685114
A;Accession: A47556
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-373 <LUS>
A;Cross-references: UNIPROT:P35383; UNIPARC:UPI0000027DFF; GB:L14751; NID:g309457; PIDN:
C;Superfamily: ATP receptor P2u
C;Keywords: transmembrane protein

  Query Match             49.5%;  Score 962.5;  DB 2;  Length 373;
  Best Local Similarity   53.7%;  Pred. No. 1.1e-77;
  Matches  188;  Conservative   46;  Mismatches   97;  Indels   19;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:   | |:||||::|||||| || |||| ||   |::|: ||: |:|: |||||||:||
Db         20 ELGYKCRFNEDFKYVLLPVSYGVVCVLGLCLNVVALYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
              :||  ||| |:|||| :|||| | :|| |||||| |||||:|||||||||| ||:  ||
Db         80 SLYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
               :||||| | |  :   ||::|  |  | |:||||| :|| : ||||:  | | |:| :|
Db        140 HSLRWGRARYARRVAAVVWVLVLACQAPVLYFVTTSVRGTRITCHDTSARELFSHFVAYS 199

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| ||||| :|  |:     |  :|:||||:|| |||:||:
Db        200 SVMLGLLFAVPFSVILVCYVLMARRLLKPAYGTTGGLPRAKRKSVRTIALVLAVFALCFL 259

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: ||:||||||||||||||| | | :  |  |
Db        260 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKITRPLASANSCLDPVLYFLAGQRLVRFARD 319

Qy        320 LCGGGKPQP----------RTAASSLALVSLPEDSSCRWAATPQDS 355
                 :| |            ||    |   |:  | | |  :||  |
Db        320 AKPPTEPTPSPQARRKLGLHRPNRTVRKDL---SVSSDDSRRTESTPAGS 366


RESULT 3
A54946
P-2U nucleotide receptor - human
C;Species: Homo sapiens (man)
C;Date: 11-Nov-1994 #sequence_revision 11-Nov-1994 #text_change 17-Mar-1999
C;Accession: A54946
R;Parr, C.E.; Sullivan, D.M.; Paradiso, A.M.; Lazarowski, E.R.; Burch, L.H.; Olsen, J.C.
Proc. Natl. Acad. Sci. U.S.A. 91, 3275-3279, 1994
A;Title: Cloning and expression of a human P-2U nucleotide receptor, a target for cystic
A;Reference number: A54946; MUID:94211846; PMID:8159738
A;Accession: A54946
A;Status: preliminary
A;Molecule type: mRNA; protein
A;Residues: 1-375 <PAR>
A;Cross-references: UNIPARC:UPI0000145104; GB:U07225
A;Note: parts of this sequence were confirmed by protein sequencing
C;Genetics:
A;Gene: GDB:P2RY2; HP2U; P2U
A;Cross-references: GDB:362713; OMIM:600041
A;Map position: 11q13.5-11q14.1
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match             48.0%;  Score 934;  DB 2;  Length 375;
  Best Local Similarity   58.5%;  Pred. No. 3.6e-75;
  Matches  183;  Conservative   41;  Mismatches   85;  Indels    4;  Gaps    3;

Qy         22 EVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSD 81
              |:   | |:||||::|||||| || |||| |||   |::|: ||: |:|: |||||||:||
Db         20 ELGYRCRFNEDFKYVLLPVSYGVVCVLGLCLNAVGLYIFLCRLKTWNASTTYMFHLAVSD 79

Qy         82 TLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPL 141
              ||  ||| |:|||  :|||| | :|| ||||||  |||||:|||||||||| ||:  ||
Db         80 ALYAASLPLLVYYYARGDHWPFSTVLCKLVRFLFYTNLYCSILFLTCISVHRCLGVLRPL 139

Qy        142 RALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFS 201
              |:|||| | |  :  |||::|  |  | |:||||| :|  : ||||: || |  :| :|
Db        140 RSLRWGRARYARRVAGAVWVLVLACQAPVLYFVTTSARG-PLTCHDTSAPELFSRFVAYS 198

Qy        202 SAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRL--RSLRTIAVVLTVFAVCFV 259
              | ::|||| ||  | |||| ||||| :|  |::    |   :|:|||||| |||:||:
Db        199 SVMLGLLFAVPFAVILVCYVLMARRLLKPAYGTSGGLPRAKRKSVRTIAVVLAVFALCFL 258

Qy        260 PFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ 319
              |||:|||:||  | |:  |  || :|: |||||||||||||| | | :  | |
Db        259 PFHVTRTLYYSFRSLDLSCHTLNAINMAYKVTR-LASANSCLDPVLYFLAGQRLVRFARD 317

Qy        320 LCGGGKPQPRTAA 332
                    | | | |
Db        318 AKPPTGPSPATPA 330


RESULT 4
JC4737
G protein-coupled receptor P2Y1 - human
N;Alternate names: P2Y1 purinergic receptor; P2Y1 purinoceptor
C;Species: Homo sapiens (man)
C;Date: 10-May-1996 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Accession: JC4737; JC4615; S54253
R;Janssens, R.; Communi, D.; Pirotton, S.; Samson, M.; Parmentier, M.; Boeynaems, J.M.
Biochem. Biophys. Res. Commun. 221, 588-593, 1996
A;Title: Cloning and tissue distribution of the human P2Y1 receptor.
A;Reference number: JC4737; MUID:96205320; PMID:8630005
A;Accession: JC4737
A;Molecule type: DNA
A;Residues: 1-373 <JAN>
A;Cross-references: UNIPROT:P47900; UNIPARC:UPI0000001C06; GB:S81950; NID:g1839438; PI
R;Ayyanathan, K.; Webbs, T.E.; Sandhu, A.K.; Athwal, R.S.; Barnard, E.A.; Kunapuli, S.
Biochem. Biophys. Res. Commun. 218, 783-788, 1996
A;Title: Cloning and chromosomal localization of the human P2Y1 purinoceptor.
A;Reference number: JC4615; MUID:96158962; PMID:8579591
A;Accession: JC4615
A;Molecule type: mRNA
A;Residues: 1-373 <AYY>
A;Cross-references: UNIPARC:UPI0000001C06; GB:U42029; NID:g1147730; PIDN:AAA97872.1; P
A;Experimental source: erythro leukemia cells
R;Leon, C.; Vial, C.; Cazenave, J.; Gachet, C.
submitted to the EMBL Data Library, May 1995
A;Description: Cloning of a human putative P2Y receptor.
A;Reference number: S54253
A;Accession: S54253
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-137,139-373 <LEO>
A;Cross-references: UNIPARC:UPI000016A5B9; EMBL:Z49205; NID:g798835; PIDN:CAA89066.1;
C;Comment: This receptor belongs to a family of G protein-coupled receptors. It respon
C;Genetics:
A;Gene: p2Y1; GDB:P2RY1
A;Cross-references: GDB:677125; OMIM:601167
A;Map position: 3pter-3qter
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; glycoprotein; phosphoprotein; transmembrane pr
F;52-77/Domain: transmembrane #status predicted <TM1>
F;88-111/Domain: transmembrane #status predicted <TM2>
F;124-152/Domain: transmembrane #status predicted <TM3>
F;171-191/Domain: transmembrane #status predicted <TM4>
F;214-237/Domain: transmembrane #status predicted <TM5>
F;261-282/Domain: transmembrane #status predicted <TM6>
F;305-328/Domain: transmembrane #status predicted <TM7>
F;11,27,113,197/Binding site: carbohydrate (Asn) (covalent) #status predicted
```

```
F;258,336/Binding site: phosphate (Ser) (covalent) (by protein kinase A) #status predict
F;330,339/Binding site: phosphate (Thr) (covalent) (by protein kinase C) #status predict
F;343/Binding site: phosphate (Ser) (covalent) (by protein kinase C and calmodulin-deper

  Query Match             33.0%;  Score 641.5;  DB 2;  Length 373;
  Best Local Similarity   40.0%;  Pred. No. 3.1e-49;
  Matches  140;  Conservative   60;  Mismatches  121;  Indels   29;  Gaps    9;

Qy         17 GPGSS------------EVELDCWFDE-DFKFILLPVSYAVVFVLGLGLNAPTLWLFIFR 63
              |||||            |   :  |:|  ||  | :||::|   |:  :|:|:|
Db         20 GPGSSWGNSTVASTAAVSSSFKCALTKTGFQFYYLPAVYILVFIIGFLGNSVAIWMFVFH 79

Qy         64 LRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSV 123
              ::||   : |||:|||:| ||||:|| ||:||     | ||  :||  ||:|: ||| |:
Db         80 MKPWSGISVYMFNLALADFLYVLTLPALIFYYFNKTDWIFGDAMCKLQRFIFHVNLYGSI 139

Qy        124 LFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLA--VWLVVAGCLVPNLFFVTTS-NKG 180
              ||||||| ||| |: :||::|  || :    :|::  |||:|   : | ||:  |   |
Db        140 LFLTCISAHRYSGVVYPLKSL--GRLKKKNAICISVLVWLIVVVAISPILFYSGTGVRKN 197

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRL-YQPLPGSAQSSS 239
               |: |:|||  |    | :|      :| || :: | ||||: | | |: |     |
Db        198 KTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLVLILGCYGLIVRALIYKDLD---NSPL 254

Qy        240 RLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARL---LEADCRVLNIVNVVYKVTRPLAS 296
              | :|:  : :|||||| ::|||: :|:   |||  . | |   : |   |:||| |||
Db        255 RRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARLDFQTPAMCAFNDRVYATYQVTRGLAS 314

Qy        297 ANSCLDPVLYLLTGDKYRRQL----RQLCGGGKPQPRTAASSLALVSLPE 342
              |||:||:|| | || :||:|    |:     :   :: :  : |  |||
Db        315 LNSCVDPILYFLAGDTFRRRLSRATRKASRRSEANLQSKSEDMTLNILPE 364


RESULT 5
S33733
G protein-coupled receptor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S33733
R;Webb, T.E.; Simon, J.; Krishek, B.J.; Bateson, A.N.; Smart, T.G.; King, B.F.; Burnstoc
FEBS Lett. 324, 219-225, 1993
A;Title: Cloning and functional expression of a brain G-protein-coupled ATP receptor.
A;Reference number: S33733; MUID:93285340; PMID:8508924
A;Accession: S33733
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-362 <WEB>
A;Cross-references: UNIPROT:P34996; UNIPARC:UPI00000405D4; EMBL:X73268; NID:g395084; PID
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match             32.3%;  Score 628;  DB 2;  Length 362;
  Best Local Similarity   39.4%;  Pred. No. 4.8e-48;
  Matches  137;  Conservative   62;  Mismatches  133;  Indels   16;  Gaps    7;

Qy          4 TESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFR 63
              |:  ||   | : |  :::  |       |:|  ||  | :||: |   |:  :|:|:|
Db         13 TQPELLAG-GWAAGNATTKCSLT---KTGFQFYYLPTVYILVFITGFLGNSVAIWMFVFH 68

Qy         64 LRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSV 123
              :|||   : |||:|||:| ||||:|| ||:||     | ||  :||  ||:|: ||| |:
Db         69 MRPWSGISVYMFNLALADFLYVLTLPALIFYYFNKTDWIFGDVMCKLQRFIFHVNLYGSI 128

Qy        124 LFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTS-NKGTT 182
              |||||||||| |: |||::|   : : |  :    || :|   : | ||:  |   :  |
Db        129 LFLTCISVHRYTGVVHPLKSLGRLKKKNAVYVSSLVWALVVAVIAPILFYSGTGVRRNKT 188

Qy        183 VLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRL-YQPLPGSAQSSSRL 241
              : |:|||  |    | :|      :| :| | ||||: : | |: |     |   |
Db        189 ITCYDTTADEYLRSYFVYSMCTTVFMFCIPFIVILGCYGLIVKALIYKDLD---NSPLRR 245

Qy        242 RSLRTIAVVLTVFAVCFVPFHITRTIYYLARL---LEADCRVLNIVNVVYKVTRPLASAN 298
              :|:  : :|||||| ::|||: :|:   |||      |   : |   |:||| ||| |
Db        246 KSIYLVIIVLTVFAVSYLPFHVMKTLNLRARLDFQTPQMCAFNDKVYATYQVTRGLASLN 305

Qy        299 SCLDPVLYLLTGDKYRRQL----RQLCGGGKPQPRTAASSLALVSLPE 342
              ||:||:|| | || :||:|    |:     :|  :: :  : |  | |
Db        306 SCVDPILYFLAGDTFRRRLSRATRKSSRRSEPNVQSKSEEMTLNILTE 353


RESULT 6
JC4162
P2Y receptor - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 12-Oct-1995 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C;Accession: JC4162
R;Henderson, D.J.; Elliot, D.G.; Smith, G.M.; Webb, T.E.; Dainty, I.A.
Biochem. Biophys. Res. Commun. 212, 648-656, 1995
A;Title: Cloning and characterisation of a bovine P2Y receptor.
A;Reference number: JC4162; MUID:95352058; PMID:7626079
A;Accession: JC4162
A;Molecule type: mRNA
A;Residues: 1-373 <HEN>
A;Cross-references: UNIPROT:P48042; UNIPARC:UPI000004BEDB; EMBL:X87628; NID:g1032484;
A;Experimental source: aortic endothelial cell
C;Genetics:
A;Gene: bovp2y
C;Superfamily: ATP receptor P2u
C;Keywords: glycoprotein; phosphoprotein; receptor; transmembrane protein
F;52-77/Domain: transmembrane #status predicted <TM1>
F;88-111/Domain: transmembrane #status predicted <TM2>
F;124-150/Domain: transmembrane #status predicted <TM3>
F;171-191/Domain: transmembrane #status predicted <TM4>
F;214-237/Domain: transmembrane #status predicted <TM5>
F;261-282/Domain: transmembrane #status predicted <TM6>
F;305-328/Domain: transmembrane #status predicted <TM7>
F;11,27,113,197/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;258/Binding site: phosphate (Ser) (covalent) (by protein kinase A) #status predicted

  Query Match             31.9%;  Score 621;  DB 2;  Length 373;
  Best Local Similarity   43.4%;  Pred. No. 2.1e-47;
  Matches  126;  Conservative   53;  Mismatches  103;  Indels    8;  Gaps    4;

Qy         33 FKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLI 92
              |:|  ||  | :||::|   |:  :|:|:| ::||   : |||:|||:| ||||:|| ||
Db         49 FQFYYLPAVYILVFIIGFLGNSVAIWMFVFHMKPWSGISVYMFNLALADFLYVLTLPALI 108

Qy         93 YYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLA 152
              :||      | ||  :||  ||:|: ||| |:||||||| ||| |: :||::|    : : |
Db        109 FYYFNKTDWIFGDAMCKLQRFIFHVNLYGSILFLTCISAHRYSGVVYPLKSLGRLKKKNA 168

Qy        153 GLLCLAVWLVVAGCLVPNLFFVTTS-NKGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGV 211
              : : |||:|   : | ||:  |   |  |: |:|||  |    | :|      :| |
Db        169 VYISVLVWLIVVVGISPILFYSGTGIRKNKTITCYDTTSDEYLRSYFIYSMCTTVAMFCV 228

Qy        212 PCLVTLVCYGLMARRL-YQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYL 270
              | :: | |||: | | |: |     |  | :|:  : :|||||| ::||.: :|:
Db        229 PLVLILGCYGLIVRALIYKDLD---NSPLRRKSIYLVIIVLTVFAVSYIPFHVMKTMNLR 285

Qy        271 ARL---LEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQL 317
              |||       |   : |   |:||| ||| |||:||:|| | || :||:|
Db        286 ARLDFQTPEMCAFNDRVYATYQVTRGLASLNSCVDPILYFLAGDTFRRRL 335


RESULT 7
I55450
G protein-coupled P2 receptor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I55450
R;Chang, K.; Hanaoka, K.; Kumada, M.; Takuwa, Y.
J. Biol. Chem. 270, 26152-26158, 1995
A;Title: Molecular cloning and functional analysis of a novel P2 nucleotide receptor.
A;Reference number: I55450; MUID:96064682; PMID:7592819
A;Accession: I55450
A;Status: preliminary; translated from GB/EMBL/DDBJ
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A;Molecule type: mRNA
A;Residues: 1-328 <RES>
A;Cross-references: UNIPROT:Q63371; UNIPARC:UPI0000131003; GB:D63665; NID:g1066007; PIDN
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor

  Query Match            30.2%;  Score 588;  DB 2;  Length 328;
  Best Local Similarity  42.2%;  Pred. No. 1.5e-44;
  Matches  136;  Conservative   37;  Mismatches  133;  Indels   16;  Gaps    6;

Qy          5 ESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRL 64
              ::  ::: || |          | : |||| :|||  |:||.|:|| ||   :
Db          4 DNGTIQAPGLPP--------TTCVYREDFKRLLLPPVYSVVLVVGLPLNVCVIAQICASR 55

Qy         65 RPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVL 124
              |    :| |  :|||:| ||  ||| ||| ||  :|||||   |: |||||| ||: |:|
Db         56 RTLTRSAVYTLNLALADLLYACSLPLLIYNYARGDHWPFGDLACRLVRFLFYANLHGSIL 115

Qy        125 FLTCISVHRYLGICHPLRALRW---GRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGT 181
              ||||||  |||||||||     |   |  | | ::|  |||||    :|   |  |  :
Db        116 FLTCISFQRYLGICHPLAP--WHKRGGRRAAWVVCGVVWLVVTAQCLPTAVFAATGIQRN 173

Qy        182 TVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRL-YQPLP-GSAQSSS 239
              :|:| : |     |: :  |:  : | :|    | ||  |||||  |  | |
Db        174 RTVCYDLSPPILSTRYLPYGMALTVIGFLLPFTALLACYCRMARRLCRQDGPAGPVAQER 233

Qy        240 RLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLE-ADCRVLNIVNVVYKVTRPLASAN 298
              | :: |   ||  || : |:|||||:| |   |       | ||       || ||| ||||
Db        234 RSKAARMAVVVAAVFVISFLPFHITKTAYLAVRSTPGVSCPVLETFAAAYKGTRPFASAN 293

Qy        299 SCLDPVLYLLTGDKYRRQLRQL 320
              | |||:|:  |  |:|||   |
Db        294 SVLDPILFYFTQQKFRRQPHDL 315


RESULT 8
JC4800
P2Y6 receptor - human
C;Species: Homo sapiens (man)
C;Date: 15-Oct-1995 #sequence_revision 16-Aug-1996 #text_change 09-Jul-2004
C;Accession: JC4800; G02514
R;Communi, D.; Parmentier, M.; Boeynaems, J.M.
Biochem. Biophys. Res. Commun. 222, 303-308, 1996
A;Title: Cloning, functional expression and tissue distribution of the human P2Y6 recept
A;Reference number: JC4800; MUID:96222498; PMID:8670200
A;Accession: JC4800
A;Molecule type: mRNA
A;Residues: 1-328 <COM>
A;Cross-references: UNIPROT:Q15077; UNIPARC:UPI000005041C; EMBL:X97058
A;Experimental source: placenta
R;Hammet, F.; Southey, M.C.; Somers, G.R.; Hutchins, A.M.; Venter, D.J.
submitted to the EMBL Data Library, March 1996
A;Reference number: H01373
A;Accession: G02514
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 'M',4-328 <HAM>
A;Cross-references: UNIPARC:UPI000016B1B0; EMBL:U52464; NID:g1407632; PIDN:AAB03572.1; P
C;Genetics:
A;Gene: P2Y6
C;Superfamily: ATP receptor P2u
C;Keywords: glycoprotein; placenta; receptor; transmembrane protein
F;26-52/Domain: transmembrane #status predicted <TMM1>
F;63-86/Domain: transmembrane #status predicted <TMM2>
F;104-122/Domain: transmembrane #status predicted <TMM3>
F;143-167/Domain: transmembrane #status predicted <TMM4>
F;193-216/Domain: transmembrane #status predicted <TMM5>
F;241-264/Domain: transmembrane #status predicted <TMM6>
F;283-305/Domain: transmembrane #status predicted <TMM7>
F;5,173/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match            30.1%;  Score 586;  DB 2;  Length 328;
  Best Local Similarity  42.5%;  Pred. No. 2.3e-44;
  Matches  135;  Conservative   37;  Mismatches  128;  Indels   18;  Gaps    6;

Qy         10 RSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDA 69
              ::||| |          | : |:|| :|||  |: |   || ||   :       |
Db          9 QALGLPP--------TTCVYRENFKQLLLPPVYSAVLAAGLPLNICVITQICTSRRALTR 60

Qy         70 TATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCI 129
              || |  :|||:| ||  ||| ||| ||  :|||||   |: |||||| ||: |:||||||
Db         61 TAVYTLNLALADLLYACSLPLLIYNYAQGDHWPFGDFACRLVRFLFYANLHGSILFLTCI 120

Qy        130 SVHRYLGICHPLRALRW---GRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCH 186
              |  |||||||||     |   |  | | |:|:|||| |    :|   |  | :    :|:
Db        121 SFQRYLGICHPLAP--WHKRGGRRAAWLVCVAVWLAVTTQCLPTAIFAATGIQRNRTVCY 178

Qy        187 DTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSAQSSSRLRS 243
              | : |     ||: :  |:  : | :|    | || |:| || :   |    ||   | ::
Db        179 DLSPPALATHYMPYGMALTVIGFLLPFAALLACYCLLACRLCRQDGPAEPVAQ-ERRGKA 237

Qy        244 LRTIAVVLTVFAVCFVPFHITRTIYYLARLLE-ADCRVLNIVNVVYKVTRPLASANSCLD 302
              |   ||   ||: |:|||||:| |   |       | ||       || ||| ||||| ||
Db        238 ARMAVVVAAAFAISFLPFHITKTAYLAVRSTPGVPCTVLEAFAAAYKGTRPFASANSVLD 297

Qy        303 PVLYLLTGDKYRRQLRQL 320
              |:|: . |  |:||:  :|
Db        298 PILFYFTQKKFRRRPHEL 315


RESULT 9
I50241
G protein-coupled receptor 6H1 - chicken
N;Alternate names: purinoceptor 6H1
C;Species: Gallus gallus (chicken)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C;Accession: I50241; JC4618
R;Kaplan, M.H.; Smith, D.I.; Sundick, R.S.
J. Immunol. 151, 628-636, 1993
A;Title: Identification of a G protein coupled receptor induced in activated T cells.
A;Reference number: I50241; MUID:93329058; PMID:8393036
A;Accession: I50241
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-308 <KAP>
A;Cross-references: UNIPROT:P32250; UNIPARC:UPI0000055A6B; GB:L06109; NID:g304383; PID
R;Webb, T.E.; Kaplan, M.G.; Barnard, E.A.
Biochem. Biophys. Res. Commun. 219, 105-110, 1996
A;Title: Identification of 6H1 as a P2Y purinoceptor: P2Y5.
A;Reference number: JC4618; MUID:96190677; PMID:8619790
A;Accession: JC4618
A;Molecule type: mRNA
A;Residues: 1-308 <WEB>
A;Cross-references: UNIPARC:UPI0000055A6B; GB:L06109; NID:g304383; PIDN:AAB06587.1; PI
A;Experimental source: T-cells
C;Comment: This receptor plays a role in T-cell activation.
C;Genetics:
A;Gene: p2Y5
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; transmembrane protein
F;15-40/Domain: transmembrane #status predicted <TM1>
F;51-74/Domain: transmembrane #status predicted <TM2>
F;89-109/Domain: transmembrane #status predicted <TM3>
F;133-153/Domain: transmembrane #status predicted <TM4>
F;177-201/Domain: transmembrane #status predicted <TM5>
F;227-248/Domain: transmembrane #status predicted <TM6>
F;269-292/Domain: transmembrane #status predicted <TM7>

  Query Match            25.8%;  Score 501.5;  DB 2;  Length 308;
  Best Local Similarity  36.9%;  Pred. No. 6.6e-37;
  Matches  108;  Conservative   56;  Mismatches  124;  Indels    5;  Gaps    4;

Qy         23 VELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDT 82
              |  :|  :: ||: |    :::|||||  |   :::| | |:  : | ||| :||:||
Db          2 VSSNCSTEDSFKYTLYGCVFSMVFVLGLIANCVAIYIFTFTLKVRNETTTYMLNLAISDL 61
```

```
Qy          83 LYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLR 142
               |:| :|| |||:   | ||||  :||     ||| |:| |:|||||||| |:| | || |
Db          62 LFVFTLPFRIYYFVVRN-WPFGDVLCKISVTLFYTNMYGSILFLTCISVDRFLAIVHPFR 120

Qy         143 ALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTV--LCHDTTRPEEFDHYVHF 200
               :   | | ::|:|||: |    |   || :|: :  |    | :      :  |:
Db         121 SKTLRTKRNARIVCVAVWITVLAGSTPASFFQSTNRQNNTEQRTCFENFPESTWKTYLSR 180

Qy         201 SSAVMGLL-FGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFV 259
                 : :: | :| :: : |  :: | | :||  |     |: : |: | | | :|  |||
Db         181 IVIFIEIVGFFIPLILNVTCSTMVLRTLNKPLTLSRNKLSKKKVLKMIFVHLVIFCFCFV 240

Qy         260 PFHITRTIYYLARLLE-ADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGD 311
               |::||  :| | |     :| |:  |  :| ||  :| :| | ||::|  | |
Db         241 PYNITLILYSLMRTQTWINCSVVTAVRTMYPVTLCIAVSNCCFDPIVYYFTSD 293


RESULT 10
T09508
intron 17 purinergic receptor P2Y5 - human
N;Alternate names: G-protein coupled receptor
C;Species: Homo sapiens (man)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004
C;Accession: T09508
R;Bohm, S.K.; Trumpp, A.; Khitin, L.M.; Kong, W.; Payan, D.G.; Bunnett, N.W.
submitted to the EMBL Data Library, April 1997
A;Description: The human purinergic receptor P2Y5 is encoded in intron 17 of the retinob
A;Reference number: Z16705
A;Accession: T09508
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-344 <BOH>
A;Cross-references: UNIPROT:P43657; UNIPARC:UPI000005041B; EMBL:AF000546; NID:g2232068;
C;Genetics:
A;Map position: 13
C;Superfamily: ATP receptor P2u
C;Keywords: G protein-coupled receptor; transmembrane protein

  Query Match           24.7%;  Score 479.5;  DB 2;  Length 344;
  Best Local Similarity  33.4%;  Pred. No. 6.6e-35;
  Matches   99;  Conservative   66;  Mismatches  126;  Indels    5;  Gaps    4;

Qy          27 CWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVL 86
               |:::: ||: |    :::|||||  |   :::||  |:  : | ||| :||:|| |:|
Db           9 CFYNDSFKYTLYGCMFSMVFVLGLVSNCVAIYIFICVLKVRNETTTYMINLAMSDLLFVF 68

Qy          87 SLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRW 146
               :||  |:|:   | ||||  :||    ||| |:| |:|||||||| |:| | :|  ::
Db          69 TLPFRIFYFTTRN-WPFGDLLCKISVMLFYTNMYGSILFLTCISVDRFLAIVYPFKSKTL 127

Qy         147 GRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTV--LCHDTTRPEEFDHYVHFSSAV 204
                 | ::|  ||| | |   | :|  :| ::|       | :      :  |:
Db         128 RTKRNAKIVCTGVWLTVIGGSAPAVFVQSTHSQGNNASEACFENFPEATWKTYLSRIVIF 187

Qy         205 MGLL-FGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHI 263
               : :: | :| :: : |  :: | |:|  |    :: : |: | | | :|  ||||::|
Db         188 IEIVGFFIPLILNVTCSSMVLKTLTKPVTLSRSKINKTKVLKMIFVHLIIFCFCFVPYNI 247

Qy         264 TRTIYYLARLLE-ADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLR 318
               :| | |     :| |:  |  :| :|  :| | | ||::|  | |  :  ::
Db         248 NLILYSLVRTQTFVNCSVVAAVRTMYPITLCIAVSNCCFDPIVYYFTSDTIQNSIK 303


RESULT 11
JC5549
heptahelical P2Y5-like receptor - human
C;Species: Homo sapiens (man)
C;Date: 02-Sep-1997 #sequence_revision 05-Sep-1997 #text_change 09-Jul-2004
C;Accession: JC5549
R;Janssens, R.; Boeynaems, J.M.; Godart, M.; Communi, D.
Biochem. Biophys. Res. Commun. 236, 106-112, 1997
A;Title: Cloning of a human heptahelical receptor closely related to the P2Y5 receptor.
A;Reference number: JC5549; MUID:97366605; PMID:9223435
A;Accession: JC5549
A;Molecule type: DNA
A;Residues: 1-370 <JAN>
A;Cross-references: UNIPROT:Q99677; UNIPARC:UPI000016A4CA; DDBJ:AF005419; NID:g2240034
C;Superfamily: ATP receptor P2u

  Query Match           23.2%;  Score 450.5;  DB 2;  Length 370;
  Best Local Similarity  33.4%;  Pred. No. 2.7e-32;
  Matches  102;  Conservative   67;  Mismatches  131;  Indels    5;  Gaps    5;

Qy          14 LSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATY 73
               | |  |::     |  |: ||: |    |:|||:|||  |: :|::| ||::    || :
Db          18 LRPRLGNATANNTCIVDDSFKYNLNGAVYSVVFILGLITNSVSLFVFCFRMKMRSETAIF 77

Qy          74 MFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHR 133
               : :||:|| |:| :||  | :|  : |||||  :||     |  |:| |:|||||||| |
Db          78 ITNLAVSDLLFVCTLPFKI-FYNFNRHWPFGDTLCKISGTAFLTNIYGSMLFLTCISVDR 136

Qy         134 YLGICHPLRALRWGRPRLAGLLCLAVW-LVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPE 192
               :| | :| |:       | : ::|  || ||::| :  :||   |  |  ||  | :
Db         137 FLAIVYPFRSRTIRTRRNSAIVCAGVWILVLSGGISASLFSTTNVNNATTT-CFEGLSKR 195

Qy         193 EFDHYVHFSSAVMGLL-FGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVL 251
                 :  |:   :  : :: | :| :: : |  :: | | :|   |   ::: : |: | | :
Db         196 VWKTYLSKITIFIEVVGFIIPLILNVSCSSVVLRTLRKPATLSQIGTNKKKVLKMITVHM 255

Qy         252 TVFAVCFVPFHITRTIYYLARLLE-ADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTG 310
                 || |||||::    :| | |     :| :     ::| :|  ||: | | || :|  |
Db         256 AVFVVCFVPYNSVLFLYALVRSQAITNCFLERFAKIMYPITLCLATLNCCFDPFIYYFTL 315

Qy         311 DKYRR 315
               : :::
Db         316 ESFQK 320


RESULT 12
I48705
proteinase activated receptor 2 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I48705
R;Nystedt, S.; Larsson, A.K.; Aberg, H.; Sundelin, J.
J. Biol. Chem. 270, 5950-5955, 1995
A;Title: The mouse proteinase-activated receptor-2 cDNA and gene. Molecular cloning an
A;Reference number: I48705; MUID:95197620; PMID:7890726
A;Accession: I48705
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-399 <RES>
A;Cross-references: UNIPROT:P55086; UNIPARC:UPI0000021CA2; EMBL:Z48043; NID:g663020; P
C;Superfamily: ATP receptor P2u

  Query Match           21.8%;  Score 423;  DB 2;  Length 399;
  Best Local Similarity  31.8%;  Pred. No. 7.9e-30;
  Matches  107;  Conservative   55;  Mismatches  141;  Indels   34;  Gaps   10;

Qy          36 ILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYY 95
               : ||| | :|||:||  |   ||:|:|| :       || :|||:| | |:  |  | |:
Db          78 VFLPVVYIIVFVIGLPSNGMALWIFLFRTKKKHPAVIYMANLALADLLSVIWFPLKISYH 137

Qy          96 AAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPR----L 151
                 |:| :|  :|| :   || |:|||:||:|||:|| ||  | :|:     | ||    :
Db         138 LHGNNWVYGEALCKVLIGFFYGNMYCSILFMTCLSVQRYWVIVNPM-----GHPRKKANI 192

Qy         152 AGLLCLAVWLVVAGCLVP-----NLFFVTTSNKGTTVLCHDTTRPEEF---DHYVHFSSA 203
               |  : ||:||::    :|       ::   | |   |||   |||     | : :| |
Db         193 AVGVSLAIWLLIFLVTIPLYVMKQTIYIPALNITT---CHDVL-PEEVLVGDMFNYFLSL 248

Qy         204 VMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHI 263
               :| :|  | |:|   | || : |              | |::| |  || :: :|| | ::
Db         249 AIG-VFLFPALLTASAYVLMIKTLRSSAMDEHSEKKRQRAIRLIITVLAMYFICFAPSNL 307

Qy         264 TRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ--LC 321
```

```
                ::|     :    |      :| | .  |:: |||:|| :|      :|  |   ||
Db        308 LLVVHYFLIKTQRQSHVY----ALYLVALCLSTLNSCIDPFVYYFVSKDFRDHARNALLC 363

Qy        322 GGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCS 358
              :   |        :||  :   | : :   || |
Db        364 RSVRTVNRMQ------ISLSSNKFSRKSGSYSSSSTS 394


RESULT 13
I51667
thrombin receptor - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
C;Accession: I51667
R;Gerszten, R.E.; Chen, J.; Ishii, M.; Ishii, K.; Nanevicz, T.; Turck, C.W.; Vu, T.H.; C
Nature 368, 648-651, 1994
A;Title: Thrombin receptor's specificity for agonist peptide is determined by its extrac
A;Reference number: I51667; MUID:94195429; PMID:8145852
A;Accession: I51667
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-420 <GER>
A;Cross-references: UNIPROT:P47749; UNIPARC:UPI0000131316; EMBL:U09632; NID:g495197; PID

  Query Match             21.2%;  Score 411.5;  DB 2;  Length 420;
  Best Local Similarity   29.7%;  Pred. No. 8.7e-29;
  Matches   98;  Conservative   61;  Mismatches  144;  Indels   27;  Gaps    7;

Qy         34 KFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIY 93
              ||:  |  | |||::|| ||   : :|:|:::       || :||::|  :|  ||  |
Db        102 KFV--PSLYTVVFIVGLPLNLLAIIIFLFKMKVRKPAVVYMLNLAIADVFFVSVLPFKIA 159

Qy         94 YYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAG 153
              |: : | | ||  :|: |  :|| |:||||| :  ||| |:| : :|: :| |     |
Db        160 YHLSGNDWLFGPGMCRIVTAIFYCNMYCSVLLIASISVDRFLAVVYPMHSLSWRTMSRAY 219

Qy        154 LLCLAVWLVVAGCLVPNLFFVTTSN--KGTTVLCHDTTRPEEF-DHYVHFSSAVMGLLFG 210
              : |  :||:     :| |    |   :     |||   ::  | |:::  |:   | |
Db        220 MACSFIWLISIASTIPLLVTEQTQKIPRLDITTCHDVLDLKDLKDFYIYYFSSFCLLFFF 279

Qy        211 VPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYL 270
              || ::| :||  : | |          |  : |:|    ||| || :|| | ::    :||
Db        280 VPFIITTICYIGIIRSLSS--SSIENSCKKTRALFLAVVVLCVFIICFGPTNVLFLTHYL 337

Qy        271 ARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ-LCGGGKPQPR 329
                    |        :   | ::  : | : ||||::|     : :| |   ||     :|
Db        338 QEANE-------FLYFAYILSACVGSVSCCLDPLIYYYASSQCQRYLYSLLCCRKVSEPG 390

Qy        330 TAASSLALVSLPEDSSCRWAATPQDSSCST 359
              ::   |   ::  |            :|||
Db        391 SSTGQLMSTAMKND-----------NCST 408


RESULT 14
S66518
proteinase-activated receptor 2 precursor - human
C;Species: Homo sapiens (man)
C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 09-Jul-2004
C;Accession: S66518; S64709; G02131
R;Nystedt, S.; Emilsson, K.; Larsson, A.K.; Stroembeck, B.; Sundelin, J.
Eur. J. Biochem. 232, 84-89, 1995
A;Title: Molecular cloning and functional expression of the gene encoding the human prot
A;Reference number: S66518; MUID:96048032; PMID:7556175
A;Accession: S66518
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-397 <NYS>
A;Cross-references: UNIPROT:P55085; UNIPARC:UPI0000131317; EMBL:Z49993; NID:g1008084; PI
R;Boehm, S.K.; Kong, W.; Broemme, D.; Smeekens, S.P.; Anderson, D.C.; Connolly, A.; Kahn
Biochem. J. 314, 1009-1016, 1996
A;Title: Molecular cloning, expression and potential functions of the human proteinase-a
A;Reference number: S64709; MUID:96177879; PMID:8615752
A;Accession: S64709
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-137,'A',139-397 <BOE>
A;Cross-references: UNIPARC:UPI0000050430; EMBL:U34038; NID:g1041728; PIDN:AAB47871.1;
A;Note: the authors translated the codon GTC for residue 68 as Ile and AAC for residue
R;Kahn, M.L.; Coughlin, S.R.
submitted to the EMBL Data Library, September 1995
A;Reference number: H00822
A;Accession: G02131
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 29-397 <KAH>
A;Cross-references: UNIPARC:UPI000016A259; EMBL:U36753; NID:g1208539; PIDN:AAA90957.1;
C;Genetics:
A;Map position: 5q13
A;Introns: 28/1
C;Superfamily: ATP receptor P2u
F;1-36/Domain: activation peptide #status predicted <APT>
F;1-25/Domain: signal sequence #status predicted <SIG>
F;37-397/Product: proteinase-activated receptor 2 #status predicted <MAT>

  Query Match             20.7%;  Score 403;  DB 2;  Length 397;
  Best Local Similarity   32.1%;  Pred. No. 4.7e-28;
  Matches   95;  Conservative   57;  Mismatches  124;  Indels   20;  Gaps    9;

Qy         36 ILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYY 95
              : ||: | :|||:||  |    ||:|:|| :          || :|||:|  | |:  |  | |:
Db         76 VFLPIVYTIVFVVGLPSNGMALWVFLFRTKKKHPAVIYMANLALADLLSVIWFPLKIAYH 135

Qy         96 AAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLL 155
                 |:|  :|  :|  :    || |:|||:||:||:|| ||   | :|:    |  :  :|  :
Db        136 IHGNNWIYGEALCNVLIGFFYGNMYCSILFMTCLSVQRYWVIVNPMGHSR-KKANIAIGI 194

Qy        156 CLAVWLVVAGCLVP-----NLFFVTTSNKGTTVLCHDTTRPEEF---DHYVHFSSAVMGL 207
              ||:||::    :|         |:    |  |    |||   ||:     | : :| |  :|
Db        195 SLAIWLLILLVTIPLYVVKQTIFIPALNITT---CHDVL-PEQLLVGDMFNYFLSLAIG- 249

Qy        208 LFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTI 267
              :|  |  :|   | || | |                 |:::  |  || :: :|| | ::   :
Db        250 VFLFPAFLTASAYVLMIRMLRSSAMDENSEKKRKRAIKLIVTVLAMYLICFTPSNLLLVV 309

Qy        268 YYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ--LC 321
              :|    |:::  :  : |  :| |    |:: |||:|| :|      :|   :   ||
Db        310 HYF--LIKSQGQ--SHVYALYIVALCLSTLNSCIDPFVYYFVSHDFRDHAKNALLC 361


RESULT 15
I38532
delta opioid receptor - human
C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 09-Jul-2004
C;Accession: I38532; I38657
R;Knapp, R.J.; Malatynska, E.; Fang, L.; Xiaoping, L.; Nguyen, M.; Santoro, G.; Varga,
Life Sci. 54, PL463-PL469, 1994
A;Title: Identification of a human delta opioid receptor: Cloning and expression.
A;Reference number: I38532; MUID:94260835; PMID:8201839
A;Accession: I38532
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-372 <KNA>
A;Cross-references: UNIPROT:P41143; UNIPARC:UPI00000503F7; EMBL:U07882; NID:g497313; P
R;Simonin, F.; Befort, K.; Gaveriaux-Ruff, C.; Matthes, H.; Nappey, V.; Lannes, B.; Mi
Mol. Pharmacol. 46, 1015-1021, 1994
A;Title: The human delta-opioid receptor: genomic organization, cDNA cloning, function
A;Reference number: I38657; MUID:95107267; PMID:7808419
A;Accession: I38657
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-26,'C',28-39,'AR',42-347,'A',349-369,'A',371-372 <SIM>
A;Cross-references: UNIPARC:UPI0000130D94; EMBL:U10504; NID:g501144; PIDN:AAA83426.1;
C;Genetics:
A;Gene: GDB:OPRD1
A;Cross-references: GDB:137215; OMIM:165195
```

A;Map position: 1p36.1-1p34.3
C;Superfamily: vertebrate rhodopsin

Query Match 20.6%; Score 400; DB 2; Length 372;
Best Local Similarity 31.2%; Pred. No. 8.1e-28;
Matches 112; Conservative 57; Mismatches 138; Indels 52; Gaps 11;

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Qy          16 PGPGS-SEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYM 74
               ||||| | : |          | :   |: |  :||  |    ::  :    :    ||  |:
Db          38 PGPGSASSLAL---------AIAITALYSAVCAVGLLGNVLVMFGIVRYTKMKTATNIYI 88

Qy          75 FHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRY 134
               |:|||:| |   :||     |     ||||  :|| |  : |:|:: |:  || :|| ||
Db          89 FNLALADALATSTLPFQSAKYLMET-WPFGELLCKAVLSIDYYNMFTSIFTLTMMSVDRY 147

Qy         135 LGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEF 194
               : :|||::|| :  |  | |: : :|:: :|  || :    |  :   |:|
Db         148 IAVCHPVKALDFRTPAKAKLINICIWVLASGVGVPIMVMAVTRPRDGAVVC--------- 198

Qy         195 DHYVHFSS----------AVMGLLFGVPCLVTLVCYGLMARRL--YQPLPGSAQSSSRL 241
                 : | |           |    | || |:  ||||||  ||   : | || :    | .
Db         199 --MLQFPSPSWYWDTVTKICVFLFAFVVPILIITVCYGLMLLRLRSVRLLSGSKEKDRSL 256

Qy         242 RSL-RTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
               | : | : ||:  | ||: | ||   :: |  :   |. |:  :::       |  |||
Db         257 RRITRMVLVVVGAFVVCWAPIHIFVIVWTLVDIDRRDPLVVAALHLCI----ALGYANSS 312

Qy         301 LDPVLYLLTGDKYRRQLRQLCGG--GKPQPRTAASSLALVSLPEDSSCR---WAATPQD 354
               |:||||    : ::|  ||||    |:| | :          | | ::: |    | || |
Db         313 LNPVLYAFLDENFKRCFRQLCRKPCGRPDPSS-------FSRPREATARERVTACTPSD 364
```

Search completed: April 4, 2006, 20:14:54
Job time : 42 secs

GenCore version 5.1.7

OM protein - protein search, using sw model

Run on: April 4, 2006, 20:26:42 ; Search time 25 Seconds
(without alignments)
444.452 Million cell updates/sec

Title: US-10-811-198-2
Perfect score: 1944
Sequence: 1 MASTESSLLRSLGLSPGPGS.....CRWAATPQDSSCSTPRADRL 365

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 180808 seqs, 30441898 residues

Total number of hits satisfying chosen parameters: 180808

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_New:*
1: /SIDS5/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
2: /SIDS5/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
3: /SIDS5/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
4: /SIDS5/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
5: /SIDS5/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
6: /SIDS5/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
7: /SIDS5/ptodata/2/pubpaa/US11_NEW_PUB.pep:*
8: /SIDS5/ptodata/2/pubpaa/US60_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1944	100.0	365	6	US-10-995-561-545	Sequence 545, App
2	641.5	33.0	373	7	US-11-127-877-46	Sequence 46, Appl
3	641.5	33.0	373	7	US-11-222-874-6	Sequence 6, Appli
4	515	26.5	367	7	US-11-157-930-6	Sequence 6, Appli
5	514	26.4	337	7	US-11-222-874-2	Sequence 2, Appli
6	510	26.2	339	7	US-11-157-930-4	Sequence 4, Appli
7	403	20.7	397	7	US-11-072-175-145	Sequence 145, App
8	397.5	20.4	485	6	US-10-821-234-934	Sequence 934, App
9	388.5	20.0	370	6	US-10-330-773-446	Sequence 446, App
10	378.5	19.5	400	7	US-11-127-877-55	Sequence 55, Appl
11	377.5	19.4	346	7	US-11-157-930-2	Sequence 2, Appli
12	375	19.3	368	6	US-10-920-055-6	Sequence 6, Appli
13	375	19.3	415	7	US-11-017-058-2	Sequence 2, Appli
14	367	18.9	357	7	US-11-261-135-2	Sequence 2, Appli
15	362.5	18.6	380	6	US-10-330-773-443	Sequence 443, App
16	361	18.6	359	6	US-10-876-787-2	Sequence 2, Appli
17	360	18.5	359	6	US-10-995-561-712	Sequence 712, App
18	360	18.5	359	6	US-10-995-561-716	Sequence 716, App
19	360	18.5	359	7	US-11-127-877-65	Sequence 65, Appl
20	360	18.5	388	6	US-10-995-561-713	Sequence 713, App
21	360	18.5	394	6	US-10-995-561-714	Sequence 714, App
22	360	18.5	394	6	US-10-995-561-715	Sequence 715, App
23	345.5	17.8	254	6	US-10-055-877-248	Sequence 248, App
24	345.5	17.8	254	6	US-10-055-877-327	Sequence 327, App
25	345.5	17.8	254	6	US-10-055-877-340	Sequence 340, App
26	345.5	17.8	254	6	US-10-877-346-83	Sequence 83, Appl
27	345.5	17.8	337	7	US-11-157-930-5	Sequence 5, Appli
28	343	17.6	388	6	US-10-995-561-838	Sequence 838, App
29	343	17.6	389	6	US-10-995-561-837	Sequence 837, App
30	342	17.6	371	6	US-10-501-035-242	Sequence 242, App
31	341	17.5	353	7	US-11-017-058-9	Sequence 9, Appli
32	333.5	17.2	350	7	US-11-249-847-546	Sequence 546, App
33	332.5	17.1	380	7	US-11-210-139-17	Sequence 17, Appl
34	330	17.0	375	7	US-11-127-877-67	Sequence 67, Appl
35	327.5	16.8	352	7	US-11-028-922A-1	Sequence 1, Appli
36	327.5	16.8	355	7	US-11-218-281-26	Sequence 26, Appl
37	325	16.7	337	7	US-11-166-412-60	Sequence 60, Appl
38	322	16.6	355	7	US-11-068-686-4	Sequence 4, Appli
39	322	16.6	355	7	US-11-127-877-64	Sequence 64, Appl
40	322	16.6	355	7	US-11-216-610-2	Sequence 2, Appli
41	322	16.6	355	7	US-11-216-610-4	Sequence 4, Appli
42	321.5	16.5	349	7	US-11-028-922A-2	Sequence 2, Appli
43	321	16.5	259	6	US-10-055-877-225	Sequence 225, App
44	321	16.5	259	6	US-10-055-877-237	Sequence 237, App
45	321	16.5	259	7	US-11-206-587-27	Sequence 27, Appl

ALIGNMENTS

RESULT 1
US-10-995-561-545
; Sequence 545, Application US/10995561
; Publication No. US20050272054A1
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele et al.
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISORDERS AND DRUG RESPONSE, METHODS OF
; TITLE OF INVENTION: DETECTION AND USES THEREOF
; FILE REFERENCE: CL001559
; CURRENT APPLICATION NUMBER: US/10/995,561
; CURRENT FILING DATE: 2004-11-24
; NUMBER OF SEQ ID NOS: 85702
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 545
; LENGTH: 365
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-995-561-545

Query Match 100.0%; Score 1944; DB 6; Length 365;
Best Local Similarity 100.0%; Pred. No. 1.7e-165;
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
```

```
Qy        361 RADRL 365
              |||||
Db        361 RADRL 365
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RESULT 2
US-11-127-877-46
; Sequence 46, Application US/11127877
; Publication No. US20050287565A1
; GENERAL INFORMATION:
; APPLICANT: Merchiers, Pascal G.
; APPLICANT: Hoffmann, Marcel
; APPLICANT: Spittaels, Koenraad F. F.
; APPLICANT: Laenen, Wendy
; TITLE OF INVENTION: Methods, Compositions and Compound Assays For Inhibiting
; TITLE OF INVENTION: Amyloid-Beta Protein Production
; FILE REFERENCE: P27,800-B USA
; CURRENT APPLICATION NUMBER: US/11/127,877
; CURRENT FILING DATE: 2005-05-12
; PRIOR APPLICATION NUMBER: 60/570,352
; PRIOR FILING DATE: 2004-05-12
; PRIOR APPLICATION NUMBER: 60/603,948
; PRIOR FILING DATE: 2004-08-24
; NUMBER OF SEQ ID NOS: 590
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 46
; LENGTH: 373
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-127-877-46

Query Match 33.0%; Score 641.5; DB 7; Length 373;
Best Local Similarity 40.0%; Pred. No. 1.2e-49;
Matches 140; Conservative 60; Mismatches 121; Indels 29; Gaps 9;

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Qy         17 GPGSS------------EVELDCWFDE-DFKFILLPVSYAVVFVLGLGLNAPTLWLFIFR 63
              |||||                    |   :  |:|  ||  | :||::|   |:  :|:|:|
Db         20 GPGSSWGNSTVASTAAVSSSFKCALTKTGFQFYYLPAVYILVFIIGFLGNSVAIWMFVFH 79

Qy         64 LRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSV 123
              ::||   : |||:|||:| ||||:|| ||:||     | ||  :||  ||:|: ||| |:
Db         80 MKPWSGISVYMFNLALADFLYVLTLPALIFYYFNKTDWIFGDAMCKLQRFIFHVNLYGSI 139

Qy        124 LFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLA--VWLVVAGCLVPNLFFVTTS-NKG 180
              ||||||| ||| |: :||::|  || :    :|::  |||:|   : | ||:  |   |
Db        140 LFLTCISAHRYSGVVYPLKSL--GRLKKKNAICISVLVWLIVVVAISPILFYSGTGVRKN 197

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRL-YQPLPGSAQSSS 239
              |: |:|||   |     |  :|       :| || :: | ||||: | | |: |     |
Db        198 KTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLVLILGCYGLIVRALIYKDLD---NSPL 254

Qy        240 RLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARL---LEADCRVLNIVNVVYKVTRPLAS 296
              | :|:  : :|||||| ::|||: :|:   |||     | |   : |   |:||| |||
Db        255 RRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARLDFQTPAMCAFNDRVYATYQVTRGLAS 314

Qy        297 ANSCLDPVLYLLTGDKYRRQL----RQLCGGGKPQPRTAASSLALVSLPE 342
              |||:||:|| | || :||:|    |:     :  :: :  : |  |||
Db        315 LNSCVDPILYFLAGDTFRRRLSRATRKASRRSEANLQSKSEDMTLNILPE 364

RESULT 3
US-11-222-874-6
; Sequence 6, Application US/11222874
; Publication No. US20060052329A1
; GENERAL INFORMATION:
; APPLICANT: Bayer AG
; TITLE OF INVENTION: REGULATION OF HUMAN P2Y1-LIKE G PROTEIN-COUPLED RECEPTOR
; FILE REFERENCE: LI0131 Foreign Countries
; CURRENT APPLICATION NUMBER: US/11/222,874
; CURRENT FILING DATE: 2005-09-09
; PRIOR APPLICATION NUMBER: US/10/344,728
; PRIOR FILING DATE: 2003-02-14
; PRIOR APPLICATION NUMBER: US 60/224,989
; PRIOR FILING DATE: 2000-08-14
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 373
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-222-874-6

Query Match 33.0%; Score 641.5; DB 7; Length 373;
Best Local Similarity 40.0%; Pred. No. 1.2e-49;
Matches 140; Conservative 60; Mismatches 121; Indels 29; Gaps 9;

```
Qy         17 GPGSS------------EVELDCWFDE-DFKFILLPVSYAVVFVLGLGLNAPTLWLFIFR 63
              |||||                    |   :  |:|  ||  | :||::|   |:  :|:|:|
Db         20 GPGSSWGNSTVASTAAVSSSFKCALTKTGFQFYYLPAVYILVFIIGFLGNSVAIWMFVFH 79

Qy         64 LRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSV 123
              ::||   : |||:|||:| ||||:|| ||:||     | ||  :||  ||:|: ||| |:
Db         80 MKPWSGISVYMFNLALADFLYVLTLPALIFYYFNKTDWIFGDAMCKLQRFIFHVNLYGSI 139

Qy        124 LFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLA--VWLVVAGCLVPNLFFVTTS-NKG 180
              ||||||| ||| |: :||::|  || :    :|::  |||:|   : | ||:  |   |
Db        140 LFLTCISAHRYSGVVYPLKSL--GRLKKKNAICISVLVWLIVVVAISPILFYSGTGVRKN 197

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRL-YQPLPGSAQSSS 239
              |: |:|||   |     |  :|       :| || :: | ||||: | | |: |     |
Db        198 KTITCYDTTSDEYLRSYFIYSMCTTVAMFCVPLVLILGCYGLIVRALIYKDLD---NSPL 254

Qy        240 RLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARL---LEADCRVLNIVNVVYKVTRPLAS 296
              | :|:  : :|||||| ::|||: :|:   |||     | |   : |   |:||| |||
Db        255 RRKSIYLVIIVLTVFAVSYIPFHVMKTMNLRARLDFQTPAMCAFNDRVYATYQVTRGLAS 314

Qy        297 ANSCLDPVLYLLTGDKYRRQL----RQLCGGGKPQPRTAASSLALVSLPE 342
              |||:||:|| | || :||:|    |:     :  :: :  : |  |||
Db        315 LNSCVDPILYFLAGDTFRRRLSRATRKASRRSEANLQSKSEDMTLNILPE 364
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RESULT 4
US-11-157-930-6
; Sequence 6, Application US/11157930
; Publication No. US20050266482A1
; GENERAL INFORMATION:
; APPLICANT: Xiao, Yonghong
; TITLE OF INVENTION: Regulation of Human CysLT2-Like GPCR
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 04974.00458
; CURRENT APPLICATION NUMBER: US/11/157,930
; CURRENT FILING DATE: 2005-06-22
; PRIOR APPLICATION NUMBER: US/09/828,478
; PRIOR FILING DATE: 2001-04-09
; PRIOR APPLICATION NUMBER: 60/195,196
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: 60/254,876
; PRIOR FILING DATE: 2000-12-13
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 367
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-157-930-6

Query Match 26.5%; Score 515; DB 7; Length 367;
Best Local Similarity 36.0%; Pred. No. 2.1e-38;
Matches 126; Conservative 55; Mismatches 149; Indels 20; Gaps 9;

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Qy          3 STESSLLRSLGLSPGPG-----SSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTL 57
              |  |  :  | ::| ||          |  :   : :|    | : |:| |  |   |
Db         23 SDSSQSMNGLEVAP-PGLITNFSLATAEQCGQETPLENMLFASFYLLDFILALVGNTLAL 81

Qy         58 WLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYW 117
              ||||   :       :: |||::|   || ||| : |: : ||||||   |:   ||||
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Db        82 WLFIRDHKSGTPANVFLMHLAVADLSCVLVLPTRLVYHFSGNHWPFGEIACRLTGFLFYL 141

Qy       118 NLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTS 177

Db       142 NMYASIYFLTCISADRFLAIVHPVKSLKLRRPLYAHLACAFLWVVVAVAMAPLLVSPQTV 201

Qy       178 NKGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQS 237

Db       202 QTNHTVVCLQLYR-EKASHHALVSLAV---AFTFPFITTVTCYLLIIRSLRQGL--RVEK 255

Qy       238 SSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYL-ARLLEADCRVLNIVNVVYKVTRPLAS 296

Db       256 RLKTKAVRMIAIVLAIFLVCFVPYHVNRSVYVLHYRSHGASCATQRILALANRITSCLTS 315

Qy       297 ANSCLDPVLYLLTGDKYRRQL-RQLCG----GGKP--QPRTAASSLALVS 339

Db       316 LNGALDPIMYFFVAEKFRHALCNLLCGKRLKGPPPSFEGKTNESSLSAKS 365


RESULT 5
US-11-222-874-2
; Sequence 2, Application US/11222874
; Publication No. US20060052329A1
; GENERAL INFORMATION:
;  APPLICANT: Bayer AG
;  TITLE OF INVENTION: REGULATION OF HUMAN P2Y1-LIKE G PROTEIN-COUPLED RECEPTOR
;  FILE REFERENCE: LIO131 Foreign Countries
;  CURRENT APPLICATION NUMBER: US/11/222,874
;  CURRENT FILING DATE:  2005-09-09
;  PRIOR APPLICATION NUMBER: US/10/344,728
;  PRIOR FILING DATE: 2003-02-14
;  PRIOR APPLICATION NUMBER: US 60/224,989
;  PRIOR FILING DATE: 2000-08-14
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 337
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-222-874-2

  Query Match             26.4%;  Score 514;  DB 7;  Length 337;
  Best Local Similarity   35.1%;  Pred. No. 2.3e-38;
  Matches  101;  Conservative   64;  Mismatches  119;  Indels    4;  Gaps    2;

Qy        30 DED--FKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLS 87

Db        26 DENIPLKMHYLPVIYGIIFLVGFPGNAVVISTYIFKMRPWKSSTIIMLNLACTDLLYLTS 85

Qy        88 LPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWG 147

Db        86 LPFLIHYYASGENWIFGDFMCKFIRFSFHFNLYSSILFLTCFSIFRYCVIIHPMSCFSIH 145

Qy       148 RPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFSSAVMGL 207

Db       146 KTRCAVVACAVVWIISLVAVIPMTFLITSTNRTNRSACLDLTSSDELNTIKWYNLILTAT 205

Qy       208 LFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTI 267

Db       206 TFCLPLVIVTLCYTTIIHTLTHGL--QTDSCLKQKARRLTILLLLAFYVCFLPFHILRVI 263

Qy       268 YYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRR 315

Db       264 RIESRLLSISCSIENQIHEAYIVSRPLAALNTFGNLLLYVVVSDNFQQ 311


RESULT 6
US-11-157-930-4
; Sequence 4, Application US/11157930
; Publication No. US20050266482A1
; GENERAL INFORMATION:
;  APPLICANT: Xiao, Yonghong
;  TITLE OF INVENTION: Regulation of Human CysLT2-Like GPCR
;  TITLE OF INVENTION:  Protein
;  FILE REFERENCE: 04974.00458
;  CURRENT APPLICATION NUMBER: US/11/157,930
;  CURRENT FILING DATE:  2005-06-22
;  PRIOR APPLICATION NUMBER: US/09/828,478
;  PRIOR FILING DATE: 2001-04-09
;  PRIOR APPLICATION NUMBER: 60/195,196
;  PRIOR FILING DATE: 2000-04-07
;  PRIOR APPLICATION NUMBER: 60/254,876
;  PRIOR FILING DATE: 2000-12-13
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 339
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-157-930-4

  Query Match             26.2%;  Score 510;  DB 7;  Length 339;
  Best Local Similarity   37.1%;  Pred. No. 5.3e-38;
  Matches  119;  Conservative   52;  Mismatches  136;  Indels   14;  Gaps    7;

Qy        27 CWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVL 86

Db        23 CGQETPLENMLFASFYLLDFILALVGNTLALWLFIRDHKSGTPANVFLMHLAVADLSCVL 82

Qy        87 SLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRW 146

Db        83 VLPTRLVYHFSGNHWPFGEIACRLTGFLFYLNMYASIYFLTCISADRFLAIVHPVKSLKL 142

Qy       147 GRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFSSAVMG 206

Db       143 RRPLYAHLACAFLWVVVAVAMAPLLVSPQTVQTNHTVVCLQLYR-EKASHHALVSLAV-- 199

Qy       207 LLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRT 266

Db       200 -AFTFPFITTVTCYLLIIRSLRQGL--RVEKRLKTKAVRMIAIVLAIFLVCFVPYHVNRS 256

Qy       267 IYYL-ARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQL-RQLCG-- 322

Db       257 VYVLHYRSHGASCATQRILALANRITSCLTSLNGALDPIMYFFVAEKFRHALCNLLCGKR 316

Qy       323 --GGKP--QPRTAASSLALVS 339

Db       317 LKGPPPSFEGKTNESSLSAKS 337


RESULT 7
US-11-072-175-145
; Sequence 145, Application US/11072175
; Publication No. US20060029944A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: IDENTIFICATION OF GENES FOR PREDICTING ACTIVITY OF COMPOUNDS THA
;  TITLE OF INVENTION:  INTERACT WITH AND/OR MODULATE PROTEIN TYROSINE KINASES AND/OR
;  TITLE OF INVENTION:  PROTEIN TYROSINE KINASE PATHWAYS IN BREAST CELLS
;  FILE REFERENCE: D0273A CIP
;  CURRENT APPLICATION NUMBER: US/11/072,175
;  CURRENT FILING DATE:  2005-03-05
;  PRIOR APPLICATION NUMBER: US 60/406,385
;  PRIOR FILING DATE: 2002-08-27
;  PRIOR APPLICATION NUMBER: US 10/648,593
;  PRIOR FILING DATE: 2003-08-26
;  NUMBER OF SEQ ID NOS: 571
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 145
;   LENGTH: 397
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-072-175-145

  Query Match             20.7%;  Score 403;  DB 7;  Length 397;
  Best Local Similarity   32.1%;  Pred. No. 2.1e-28;
```

Matches 95; Conservative 57; Mismatches 124; Indels 20; Gaps 9;

```
Qy          36 ILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYY 95
               : ||: | :|||:||  |   ||:|:|| :          || :|||:| | |:  |  | |:
Db          76 VFLPIVYTIVFVVGLPSNGMALWVFLFRTKKKHPAVIYMANLALADLLSVIWFPLKIAYH 135

Qy          96 AAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLL 155
                 |:| :|  :|  :   || |:|||:||:||:|| || . | :|:   |  :  :|  :
Db         136 IHGNNWIYGEALCNVLIGFFYGNMYCSILFMTCLSVQRYWVIVNPMGHSR-KKANIAIGI 194

Qy         156 CLAVWLVVAGCLVP-----NLFFVTTSNKGTTVLCHDTTRPEEF---DHYVHFSSAVMGL 207
               ||:||::   :|       |:   |  |   |||   ||:    | : :| | :|
Db         195 SLAIWLLILLVTIPLYVVKQTIFIPALNITT---CHDVL-PEQLLVGDMFNYFLSLAIG- 249

Qy         208 LFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTI 267
               :|  |  :|   | || | |          | |::: |  || :: :|| | ::   :
Db         250 VFLFPAFLTASAYVLMIRMLRSSAMDENSEKKRKRAIKLIVTVLAMYLICFTPSNLLLVV 309

Qy         268 YYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ--LC 321
               :|   |:::  :  : |  :| |   |:: |||:|| :|      :|   :   ||
Db         310 HYF--LIKSQGQ--SHVYALYIVALCLSTLNSCIDPFVYYFVSHDFRDHAKNALLC 361
```

RESULT 8
US-10-821-234-934
; Sequence 934, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
; APPLICANT: Labat, Ivan
; APPLICANT: Stache-Crain, Birgit
; APPLICANT: Andarmani, Susan
; APPLICANT: Tang, Y. Tom
; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
; FILE REFERENCE: 821A
; CURRENT APPLICATION NUMBER: US/10/821,234
; CURRENT FILING DATE: 2004-04-07
; PRIOR APPLICATION NUMBER: US 60/462,047
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 1704
; SOFTWARE: pt_SEQ_genes Version 1.0
; SEQ ID NO 934
; LENGTH: 485
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-821-234-934

Query Match 20.4%; Score 397.5; DB 6; Length 485;
Best Local Similarity 29.9%; Pred. No. 7.8e-28;
Matches 97; Conservative 60; Mismatches 136; Indels 31; Gaps 8;

```
Qy          36 ILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYY 95
               : :|  |  |||: | ||   : :|| :::         || ||| :| |:|  ||  | ||
Db         163 LFVPSVYTGVFVVSLPLNIMAIVVFILKMKVKKPAVVYMLHLATADVLFVSVLPFKISYY 222

Qy          96 AAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLL 155
               : : | ||:|:|:||   || |:| |:| :| ||: |:|  : :|:::| |     |
Db         223 FSGSDWQFGSELCRFVTAAFYCNMYASILLMTVISIDRFLAVVYPMQSLSWRTLGRASFT 282

Qy         156 CLAVW-LVVAGCL----------VPNLFFVTTSNKGTTVLCHDTTRPEEFD-HYVHFSSA 203
               |||:| | :|| :          || |   |          |||       : :| :: ||
Db         283 CLAIWALAIAGVVPLVLKEQTIQVPGLNITT---------CHDVLNETLLEGYYAYYFSA 333

Qy         204 VMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHI 263
               : | || ::: |||  : | |       |  | : |:|   | |  :| :|| | ::
Db         334 FSAVFFFVPLIISTVCYVSIIRCLSS--SAVANRSKKSRALFLSAAVFCIFIICFGPTNV 391

Qy         264 TRTIYY--LARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQ-L 320
               .:|  |:      :           | :   ::| :|||:||::|     : :| :   |
Db         392 LLIAHYSFLSHTSTTEAAYF-----AYLLCVCVSSISSCIDPLIYYYASSECQRYVYSIL 446

Qy         321 CGGGKPQPRTAASSLALVSLPEDS 344
               |      | :  ||  |::   |:
Db         447 CCKESSDPSSYNSSGQLMASKMDT 470
```

RESULT 9
US-10-330-773-446
; Sequence 446, Application US/10330773
; Publication No. US20060040262A1
; GENERAL INFORMATION:
; APPLICANT: David W. Morris
; APPLICANT: Marc Malandro
; TITLE OF INVENTION: Novel Compositions and Methods in Cancer
; FILE REFERENCE: 529452001300
; CURRENT APPLICATION NUMBER: US/10/330,773
; CURRENT FILING DATE: 2002-12-27
; NUMBER OF SEQ ID NOS: 981
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 446
; LENGTH: 370
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-330-773-446

Query Match 20.0%; Score 388.5; DB 6; Length 370;
Best Local Similarity 33.7%; Pred. No. 3.7e-27;
Matches 95; Conservative 45; Mismatches 111; Indels 31; Gaps 9;

```
Qy          37 LLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYA 96
               |:|  | :|||:|:  || |||:  || |     |  | :||::| |: ::||  | |:
Db          96 LIPAIYLLVFVVGVPANAVTLWMLFFRTRSICTTVFYT-NLAIADFLFCVTLPFKIAYHL 154

Qy          97 AHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPR--LAGL 154
                 :| ||  :|:    :|| |:|||:| | |||::||| | ||      :| |:   | :
Db         155 NGNNWVFGEVLCRATTVIFYGNMYCSILLLACISINRYLAIVHPF----YGLPKHTYALV 210

Qy         155 LCLAVWLVVAGCLVPNLFFVTTSN----KGTTVLCHDTTRPEE----FDHYVHFSSAVMG 206
               |  ||  |   ::|  ||:         :     |||      |    |  |  | | |
Db         211 TCGLVWATVFLYMLP--FFILKQEYYLVQPDITTCHDVHNTCESSSPFQLYYFISLAFFG 268

Qy         207 LLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRT 266
               |  :| :: : ||  : | |       :|     |  ::   ::| :| :|| | :|
Db         269 FL--IPFVLIIYCYAAIIRTL------NAYDHRWLWYVKASLLILVIFTICFAPSNIILI 320

Qy         267 IYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLL 308
               |::      |:     |    :| :   | | |||||| || |
Db         321 IHH------ANYYYNNTDGFIYLIALCLGSLNSCLDPFLYFL 356
```

RESULT 10
US-11-127-877-55
; Sequence 55, Application US/11127877
; Publication No. US20050287565A1
; GENERAL INFORMATION:
; APPLICANT: Merchiers, Pascal G.
; APPLICANT: Hoffmann, Marcel
; APPLICANT: Spittaels, Koenraad F. F.
; APPLICANT: Laenen, Wendy
; TITLE OF INVENTION: Methods, Compositions and Compound Assays For Inhibiting
; TITLE OF INVENTION: Amyloid-Beta Protein Production
; FILE REFERENCE: P27,800-B USA
; CURRENT APPLICATION NUMBER: US/11/127,877
; CURRENT FILING DATE: 2005-05-12
; PRIOR APPLICATION NUMBER: 60/570,352
; PRIOR FILING DATE: 2004-05-12
; PRIOR APPLICATION NUMBER: 60/603,948
; PRIOR FILING DATE: 2004-08-24
; NUMBER OF SEQ ID NOS: 590
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 55
; LENGTH: 400
; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-127-877-55

Query Match 19.5%; Score 378.5; DB 7; Length 400;

```
  Best Local Similarity   32.3%;  Pred. No. 3.1e-26;
  Matches   95;  Conservative   52;  Mismatches  128;  Indels   19;  Gaps    6;

Qy         36 ILLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYY 95
              |:  |::| |:||  |   ::: :   :   ||  |:|:|||:| |   :||     |
Db         71 ITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTATNIYIFNLALADALATSTLPFQSVNY 130

Qy         96 AAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLL 155
              ||||| :|| |  : |:|:: |:  |  :|| ||: :|||::|| :  || | ::
Db        131 LM-GTWPFGTILCKIVISIDYYNMFTSIFTLCTMSVDRYIAVCHPVKALDFRTPRNAKII 189

Qy        156 CLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHF-----SSAVMGLLFG 210
              :  |:: :   :| :|  ||  :  :: | .|     | |  :        |    |
Db        190 NVCNWILSSAIGLPVMFMATTKYRQGSIDCTLT-----FSHPTWYWENLVKICVFIFAFI 244

Qy        211 VPCLVTLVCYGLMARRL--YQPLPGSAQSSSRLRSL-RTIAVVLTVFAVCFVPFHITRTI 267
              :| |:  |||||  ||   : | || :    || : | : ||: || ||: | ||  |
Db        245 MPVLIITVCYGLMILRLKSVRMLSGSKEKDRNLRRITRMVLVVVAVFIVCWTPIHIYVII 304

Qy        268 YYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQLRQLC 321
              |  : |       | :    |  ||||:||||    : ::|  |: |
Db        305 KALVTIPET-----TFQTVSWHFCIALGYTNSCLNPVLYAFLDENFKRCFREFC 353


RESULT 11
US-11-157-930-2
; Sequence 2, Application US/11157930
; Publication No. US20050266482A1
; GENERAL INFORMATION:
;  APPLICANT: Xiao, Yonghong
;  TITLE OF INVENTION: Regulation of Human CysLT2-Like GPCR
;  TITLE OF INVENTION:  Protein
;  FILE REFERENCE: 04974.00458
;  CURRENT APPLICATION NUMBER: US/11/157,930
;  CURRENT FILING DATE:  2005-06-22
;  PRIOR APPLICATION NUMBER: US/09/828,478
;  PRIOR FILING DATE: 2001-04-09
;  PRIOR APPLICATION NUMBER: 60/195,196
;  PRIOR FILING DATE: 2000-04-07
;  PRIOR APPLICATION NUMBER: 60/254,876
;  PRIOR FILING DATE: 2000-12-13
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 346
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-157-930-2

  Query Match             19.4%;  Score 377.5;  DB 7;  Length 346;
  Best Local Similarity   29.2%;  Pred. No. 3.3e-26;
  Matches   99;  Conservative   73;  Mismatches  126;  Indels   41;  Gaps   12;

Qy         12 LGLSPGPGSSEVELDCWFD---------EDFKFILLPVSYAVVF---VLGLGLNAPTLWL 59
              : | |    ||:| :  |           |:||    |: | ::|   ||| ||:    :
Db          6 MSLQPSISVSEMEPNGTFSNNNSRNCTIENFKREFFPIVYLIIFFWGVLGNGLS-----I 60

Qy         60 FIFRLRPWDATAT---YMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFY 116
              ::| |:|:  : :   :| :||:|| |:: :||    ||   ::| ||   |: : :  |
Db         61 YVF-LQPYKKSTSVNVFMLNLAISDLLFISTLPFRADYYLRGSNWIFGDLACRIMSYSLY 119

Qy        117 WNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTT 176
              |:| |: ||| :|| |:| : || | |      | | :||  :|:::    :  |   :
Db        120 VNMYSSIYFLTVLSVVRFLAMVHPFRLLHVTSIRSAWILCGIIWILIMASSIMLLDSGSE 179

Qy        177 SNKGTTVLCHDTTRPEEFDHY-------VHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ 229
              | |:  |       | : |       ::: : |:| |  :|     :|| |: | | :
Db        180 QN-GSVTSC------LELNLYKIAKLQTMNYIALVVGCL--LPFFTLSICYLLIIRVLLK 230

Qy        230 -PLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVY 288
               :| |    |  ::| || : | :| :||:|:|  ||: :|       |:  : ::
Db        231 VEVPESGLRVSHRKALTTIIITLIIFFLCFLPYHTLRTV-HLTTWKVGLCK--DRLHKAL 287

Qy        289 KVTRPLASANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQ 327
               :|  ||:||:| :|:||   |: :: :|:     | ||
Db        288 VITLALAAANACFNPLLYYFAGENFKDRLKSALRKGHPQ 326


RESULT 12
US-10-920-055-6
; Sequence 6, Application US/10920055
; Publication No. US20060040329A1
; GENERAL INFORMATION:
;  APPLICANT: Kelvin, David
;  APPLICANT:  Persad, Desmond
;  APPLICANT:  Cameron, Mark J.
;  TITLE OF INVENTION: CXCL10 - Based Diagnosis and Treatment of Respiratory Illnesses
;  FILE REFERENCE: 86363-9
;  CURRENT APPLICATION NUMBER: US/10/920,055
;  CURRENT FILING DATE:  2004-08-17
;  NUMBER OF SEQ ID NOS: 8
;  SOFTWARE: PatentIn version 3.3
; SEQ ID NO 6
;   LENGTH: 368
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-920-055-6

  Query Match             19.3%;  Score 375;  DB 6;  Length 368;
  Best Local Similarity   30.6%;  Pred. No. 5.9e-26;
  Matches  114;  Conservative   57;  Mismatches  155;  Indels   46;  Gaps   11;

Qy          6 SSLLRSLGLSPGPGSSEVELDCW-------FDEDPKFILLPVSYAVVFVLGLGLNAPTLW 58
              ::|| :   |   | :| :  |         |  :|    ||  |:::|:|||  |
Db         17 AALLENFSSSYDYGENESDSCCTSPPCPQDFSLNFDRAFLPALYSLLFLLGLLGNGAVAA 76

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
              : : |      :| |:: |||::||| ||:||  ::   |  | ||: :||    ||  |
Db         77 VLLSRRTALSSTDTFLLHLAVADTLLVLTLP--LWAVDAAVQWVFGSGLCKVAGALFNIN 134

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              |   | | |||  ||| | |  :  | | |     | |||||  :  :|:  |::
Db        135 FYAGALLLACISFDRYLNIVHATQLYRRGPPARVTLTCLAVWGLCLLFALPDFIFLSAH- 193

Qy        179 KGTTVLCHD-----TTRPEEFDHYVHFSSAVMGLLFG--VPCLVTLVCYG-LMARRLYQP 230
                    ||      |       |       :  |: |: |  :| ||   ||  ::|  |
Db        194 -------HDERLNATHCQYNFPQVGRTALRVLQLVAGFLLPLLVMAYCYAHILAVLLV-- 244

Qy        231 LPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARL--LEADCRVLNIVNVVY 288
              ::   |||::| : ||:  ||:|: |:|:   :  |  |  :|   : |:|
Db        245 ----SRGQRRLRAMRLVVVVVVAFALCWTPYHLVVLVDILMDLGALARNCGRESRVDVAK 300

Qy        289 KVTRPLASANSCLDPVLYLLTGDKYRRQ-----LRQLCGGGKPQPRTAASSLALVSLPED 343
               ||  |   : ||:|:||   | :| :      ||  |   :  |  :||         |
Db        301 SVTSGLGYMHCCLNPLLYAFVGVKFRERMWMLLLRLGCPNQRGLQRQPSSS------RRD 354

Qy        344 SSCRWAATPQDS 355
              ||  |: | : |
Db        355 SS--WSETSEAS 364


RESULT 13
US-11-017-058-2
; Sequence 2, Application US/11017058
; Publication No. US20060014243A1
; GENERAL INFORMATION:
;  APPLICANT: Li, Yi
;  TITLE OF INVENTION: Human G-Protein Chemokine Receptor HSATU68
;  FILE REFERENCE: PF218C1
;  CURRENT APPLICATION NUMBER: US/11/017,058
;  CURRENT FILING DATE:  2004-12-21
;  PRIOR APPLICATION NUMBER: US 09/101,518
;  PRIOR FILING DATE: 1998-12-21
;  PRIOR APPLICATION NUMBER: PCT/US96/00499
;  PRIOR FILING DATE: 1996-01-11
;  NUMBER OF SEQ ID NOS: 9
```

```
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 415
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-017-058-2

  Query Match             19.3%;  Score 375;  DB 7;  Length 415;
  Best Local Similarity   30.6%;  Pred. No. 6.7e-26;
  Matches  114;  Conservative   57;  Mismatches  155;  Indels   46;  Gaps   11;

Qy          6 SSLLRSLGLSPGPGSSEVELDCW-------FDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
              ::|| :   |   | :| :  |         |  :|    ||  |:::|:|||  |
Db         64 AALLENFSSSYDYGENESDSCCTSPPCPQDFSLNFDRAFLPALYSLLFLLGLLGNGAVAA 123

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
              : : |     :| |:: |||::||| ||:||  ::    |  | ||: :||    ||  |
Db        124 VLLSRRTALSSTDTFLLHLAVADTLLVLTLP--LWAVDAAVQWVFGSGLCKVAGALFNIN 181

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              |   | | |||  ||| | |  :  | | |     | ||||| :     :|:  |::
Db        182 FYAGALLLACISFDRYLNIVHATQLYRRGPPARVTLTCLAVWGLCLLFALPDFIFLSAH- 240

Qy        179 KGTTVLCHD-----TTRPEEFDHYVHFSSAVMGLLFG--VPCLVTLVCYG-LMARRLYQP 230
                  ||      |      |       :  |: |: |  :| ||   ||  ::|  |
Db        241 -------HDERLNATHCQYNFPQVGRTALRVLQLVAGFLLPLLVMAYCYAHILAVLLV-- 291

Qy        231 LPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARL--LEADCRVLNIVNVVY 288
                ::   |||::| : ||:  ||:|: |:|:   :  |  |  | :|   : |:|
Db        292 ----SRGQRRLRAMRLVVVVVVVAFALCWTPYHLVVLVDILMDLGALARNCGRESRVDVAK 347

Qy        289 KVTRPLASANSCLDPVLYLLTGDKYRRQ-----LRQLCGGGKPQPRTAASSLALVSLPED 343
              ||  |   : ||:|:||   | |:| :      ||  |   :  | :||           |
Db        348 SVTSGLGYMHCCLNPLLYAFVGVKFRERMWMLLLRLGCPNQRGLQRQPSSS------RRD 401

Qy        344 SSCRWAATPQDS 355
              ||  |: | : |
Db        402 SS--WSETSEAS 411


RESULT 14
US-11-261-135-2
; Sequence 2, Application US/11261135
; Publication No. US20060041948A1
; GENERAL INFORMATION:
;  APPLICANT: Allen, Keith D.
;  TITLE OF INVENTION: TRANSGENIC MICE CONTAINING CHEMOKINE
;  TITLE OF INVENTION:  RECEPTOR 9A GENE DISRUPTIONS
;  FILE REFERENCE: R-365
;  CURRENT APPLICATION NUMBER: US/11/261,135
;  CURRENT FILING DATE:  2005-10-27
;  PRIOR APPLICATION NUMBER: US/09/903,377
;  PRIOR FILING DATE: 2001-07-10
;  PRIOR APPLICATION NUMBER: US 60/217,255
;  PRIOR FILING DATE: 2000-07-10
;  PRIOR APPLICATION NUMBER: US 60/221,483
;  PRIOR FILING DATE: 2000-07-27
;  PRIOR APPLICATION NUMBER: US 60/262,113
;  PRIOR FILING DATE: 2001-01-16
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 357
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Targeting vector
US-11-261-135-2

  Query Match             18.9%;  Score 367;  DB 7;  Length 357;
  Best Local Similarity   29.8%;  Pred. No. 2.9e-25;
  Matches   86;  Conservative   67;  Mismatches  116;  Indels   20;  Gaps    7;

Qy         38 LPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAA 97
              ||  | :||::|   |:  : :: :  |     |  :: :||::| |::::||   :  ||
Db         39 LPPLYWLVFIVGALGNSLVILVYWYCTRVKTMTDMFLLNLAIADLLFLVTLP--FWAIAA 96

Qy         98 HNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRL--AGLL 155
              : | | | :|| |  ::  | |  || : |||| ||: |   :||  |   ||  : ::
Db         97 ADQWKFQTFMCKVVNSMYKMNFYSCVLLIMCISVDRYIAIAQAMRAHTWREKRLLYSKMV 156

Qy        156 CLAVWLVVAGCLVPNLFFVTTSNKGTTVLCHDTTRPEEFDHYVHFSSAVMGLL----FGV 211
              |  :|:: |   :| : :     :   :|   |       |      |||: |     | <
Db        157 CFTIWVLAAALCIPEILYSQIKEESGIAIC---TMVYPSDESTKLKSAVLTLKVILGFFL 213

Qy        212 PCLVTLVCYGLMARRLYQPLPGSAQSSSRLRSLRTIAVVLTVFAVCFVPFH---ITRTIY 268
              | :|   || ::   | |     |: ||: ::|:    |||||  :   |::   ::||
Db        214 PFVVMACCYTIIIHTLIQ-----AKKSSKHKALKVTITVLTVFVLSQFPYNCILLVQTID 268

Qy        269 YLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLLTGDKYRRQL 317
              |  : ::| |   ::: ::||: :|  :|||:||||:  |:::|| |
Db        269 AYAMFI-SNCAVSTNIDICFQVTQTIAFFHSCLNPVLYVFVGERFRRDL 316


RESULT 15
US-10-330-773-443
; Sequence 443, Application US/10330773
; Publication No. US20060040262A1
; GENERAL INFORMATION:
;  APPLICANT: David W. Morris
;  APPLICANT:  Marc Malandro
;  TITLE OF INVENTION: Novel Compositions and Methods in Cancer
;  FILE REFERENCE: 529452001300
;  CURRENT APPLICATION NUMBER: US/10/330,773
;  CURRENT FILING DATE:  2002-12-27
;  NUMBER OF SEQ ID NOS: 981
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 443
;   LENGTH: 380
;   TYPE: PRT
;   ORGANISM: Mus musculus
US-10-330-773-443

  Query Match             18.6%;  Score 362.5;  DB 6;  Length 380;
  Best Local Similarity   27.9%;  Pred. No. 7.9e-25;
  Matches   83;  Conservative   56;  Mismatches  100;  Indels   59;  Gaps   10;

Qy         37 LLPVSYAVVFVLGLGLNAPTLWLFIFRLRPWDATATYMFH--LALSDTLYVLSLPTLIYY 94
              ::|  | ::||:|:  |  |||    | :  : :  :||  ||::| |: ::||  | |
Db        106 VIPAIYILLFVVGVPANIVTLWKLSLRTK---SISLVIFHTNLAIADLLFCVTLPFKIAY 162

Qy         95 YAAHNHWPFGTEICKFVRFLFYWNLYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGL 154
              :   |:| ||  :|:    :|| |:||::| |||: ::|||   ||    :  :   : |
Db        163 HLNGNNWVFGEVMCRITTVVFYGNMYCAILILTCMGINRYLATAHPFTYQKLPKRSFSML 222

Qy        155 LCLAVWLVVAGCLVPNLFFVTTSNK-----GTTVLCHDTT----RPEEFDHYVHFSSAVM 205
              :|  ||::|   ::|   ||   :          |||        |  |  |   | |
Db        223 MCGMVWVMVFLYMLP---FVILKQEYHLVHSEITTCHDVVDACESPSSFRFYYFVSLAFF 279

Qy        206 GLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR--LRSLRTIAVVLTVFAVCFVP--- 260
              | |  :| :: : ||  :  :|         :|  |  |  :: : ::| :| :|| |
Db        280 GFL--IPFVIIIFCYTTLIHKL--------KSKDRIWLGYIKAVLLILVIPTICFAPTNI 329

Qy        261 ----------FHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSCLDPVLYLL 308
                       :| | ::|::                  | :   | | |||||| || :
Db        330 ILVIHHANYYYHNTDSLYFM----------------YLIALCLGSLNSCLDPFLYFV 370


Search completed: April  4, 2006, 20:29:49
Job time : 26 secs
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GenCore version 5.1.7

OM protein - protein search, using sw model

Run on: April 4, 2006, 20:25:38 ; Search time 167 Seconds
(without alignments)
913.220 Million cell updates/sec

Title: US-10-811-198-2
Perfect score: 1944
Sequence: 1 MASTESSLLRSLGLSPGPGS.....CRWAATPQDSSCSTPRADRL 365

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_Main:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1944	100.0	365	3	US-09-745-842-16	Sequence 16, Appl
2	1944	100.0	365	4	US-10-225-567A-332	Sequence 332, App
3	1944	100.0	365	4	US-10-753-695-2	Sequence 2, Appli
4	1944	100.0	365	5	US-10-811-198-2	Sequence 2, Appli
5	1944	100.0	365	5	US-10-811-192-2	Sequence 2, Appli
6	1940	99.8	365	3	US-09-077-173A-2	Sequence 2, Appli
7	1932	99.4	365	4	US-10-366-288-42	Sequence 42, Appl
8	1597	82.2	361	3	US-09-964-821B-15	Sequence 15, Appl
9	1597	82.2	361	4	US-10-010-568-9	Sequence 9, Appli
10	1597	82.2	361	4	US-10-268-332-15	Sequence 15, Appl
11	1597	82.2	361	4	US-10-375-157-9	Sequence 9, Appli
12	1597	82.2	361	4	US-10-072-012-521	Sequence 521, App
13	1597	82.2	361	4	US-10-775-965-15	Sequence 15, Appl
14	1127.5	58.0	374	3	US-09-745-842-15	Sequence 15, Appl
15	1127.5	58.0	374	4	US-10-010-568-11	Sequence 11, Appl
16	1127.5	58.0	374	4	US-10-375-157-11	Sequence 11, Appl
17	1127.5	58.0	374	4	US-10-072-012-518	Sequence 518, App
18	1007.5	51.8	537	4	US-10-311-956-4	Sequence 4, Appli
19	1007.5	51.8	537	4	US-10-010-568-12	Sequence 12, Appl
20	1007.5	51.8	537	4	US-10-375-157-12	Sequence 12, Appl
21	1007.5	51.8	537	4	US-10-055-569A-52	Sequence 52, Appl
22	1007.5	51.8	537	4	US-10-072-012-517	Sequence 517, App
23	965	49.6	377	3	US-09-745-842-17	Sequence 17, Appl
24	965	49.6	377	4	US-10-225-567A-217	Sequence 217, App
25	965	49.6	377	5	US-10-756-149-5688	Sequence 5688, Ap
26	955	49.1	374	4	US-10-242-499-3	Sequence 3, Appli
27	951	48.9	341	4	US-10-270-587-3	Sequence 3, Appli
28	950	48.9	374	4	US-10-010-568-13	Sequence 13, Appl
29	950	48.9	374	4	US-10-375-157-13	Sequence 13, Appl
30	934	48.0	375	3	US-09-947-922-3	Sequence 3, Appli
31	934	48.0	375	4	US-10-706-532-3	Sequence 3, Appli
32	641.5	33.0	373	3	US-09-745-842-14	Sequence 14, Appl
33	641.5	33.0	373	4	US-10-092-135-6	Sequence 6, Appli
34	641.5	33.0	373	4	US-10-225-567A-219	Sequence 219, App
35	641.5	33.0	373	4	US-10-010-568-8	Sequence 8, Appli
36	641.5	33.0	373	4	US-10-375-157-8	Sequence 8, Appli
37	641.5	33.0	373	4	US-10-023-634-59	Sequence 59, Appl
38	641.5	33.0	373	4	US-10-055-569A-51	Sequence 51, Appl
39	641.5	33.0	373	4	US-10-344-728-6	Sequence 6, Appli
40	641.5	33.0	373	6	US-11-063-894-6	Sequence 6, Appli
41	631	32.5	362	3	US-09-991-225-4	Sequence 4, Appli
42	631	32.5	362	4	US-10-092-135-4	Sequence 4, Appli
43	631	32.5	362	4	US-10-010-568-4	Sequence 4, Appli
44	631	32.5	362	4	US-10-044-643-47	Sequence 47, Appl
45	631	32.5	362	4	US-10-369-405-4	Sequence 4, Appli

ALIGNMENTS

RESULT 1
US-09-745-842-16
; Sequence 16, Application US/09745842
; Publication No. US20030170777A1
; GENERAL INFORMATION:
; APPLICANT: Conley, Pamela B.
; APPLICANT: Jantzen, Hans-Michael
; APPLICANT: Ramakrishnan-DuBridge, Vanitha
; APPLICANT: Julius, David
; APPLICANT: Hollopeter, Gunter
; APPLICANT: COR Therapeutics, Inc.
; TITLE OF INVENTION: P2Y12 Receptor
; FILE REFERENCE: 44481-5053-US
; CURRENT APPLICATION NUMBER: US/09/745,842
; CURRENT FILING DATE: 2000-12-26
; PRIOR APPLICATION NUMBER: US 60/171,622
; PRIOR FILING DATE: 1999-12-23
; NUMBER OF SEQ ID NOS: 21
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
; LENGTH: 365
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: P2Y4 pyrimidinergic receptor
US-09-745-842-16

Query Match 100.0%; Score 1944; DB 3; Length 365;
Best Local Similarity 100.0%; Pred. No. 1.3e-158;
Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db    1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy   61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
Db   61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy  121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
Db  121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy  181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
Db  181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy  241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
Db  241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
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Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db.       301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 2
US-10-225-567A-332
; Sequence 332, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
;  APPLICANT: LifeSpan Biosciences
;  APPLICANT:  Brown, Joseph P.
;  APPLICANT:  Burmer, Glenna C.
;  APPLICANT:  Roush, Christine L.
;  TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
;  FILE REFERENCE: 1920-4-4
;  CURRENT APPLICATION NUMBER: US/10/225,567A
;  CURRENT FILING DATE:  2001-12-19
;  PRIOR APPLICATION NUMBER: 60/257,144
;  PRIOR FILING DATE: 2000-12-19
;  NUMBER OF SEQ ID NOS: 2292
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 332
;   LENGTH: 365
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-225-567A-332

  Query Match             100.0%;  Score 1944;  DB 4;  Length 365;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-158;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
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Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
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Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
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Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 3
US-10-753-695-2
; Sequence 2, Application US/10753695
; Publication No. US20040175766A1
; GENERAL INFORMATION:
;  APPLICANT: Communi, Didier
;  APPLICANT:  Boeynaems, Jean-Marie
;  APPLICANT:  Pirotton, Sabine
;  APPLICANT:  Parmentier, Marc
;  TITLE OF INVENTION: Human Pyrimidine Receptor
;  FILE REFERENCE: 9409/2113
;  CURRENT APPLICATION NUMBER: US/10/753,695
;  CURRENT FILING DATE:  2004-01-08
;  PRIOR APPLICATION NUMBER: 09/077,173
;  PRIOR FILING DATE: 1998-11-12
;  PRIOR APPLICATION NUMBER: PCT/BE96/00123
;  PRIOR FILING DATE: 1996-11-21
;  PRIOR APPLICATION NUMBER: EP 95870124.5
;  PRIOR FILING DATE: 1995-11-21
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 365
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-753-695-2

  Query Match             100.0%;  Score 1944;  DB 4;  Length 365;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-158;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
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Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 4
US-10-811-198-2
; Sequence 2, Application US/10811198
; Publication No. US20040259171A1
; GENERAL INFORMATION:
;  APPLICANT: Communi, Didier
;  APPLICANT:  Boeynaems, Jean-Marie
;  APPLICANT:  Pirotton, Sabine
;  APPLICANT:  Parmentier, Marc
;  TITLE OF INVENTION: P2Y4 Antibody and Methods of Use
;  FILE REFERENCE: 9409/2113B
;  CURRENT APPLICATION NUMBER: US/10/811,198
;  CURRENT FILING DATE:  2004-03-26
;  PRIOR APPLICATION NUMBER: 10/753,695
;  PRIOR FILING DATE: 2004-01-08
;  PRIOR APPLICATION NUMBER: 09/077,173
;  PRIOR FILING DATE: 1998-11-12
;  PRIOR APPLICATION NUMBER: PCT/BE96/00123
;  PRIOR FILING DATE: 1996-11-21
;  PRIOR APPLICATION NUMBER: EP 95870124.5
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 ;  PRIOR FILING DATE: 1995-11-21
 ;  NUMBER OF SEQ ID NOS: 4
 ;  SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 2
 ;   LENGTH: 365
 ;   TYPE: PRT
 ;   ORGANISM: Homo sapiens
US-10-811-198-2

  Query Match           100.0%;  Score 1944;  DB 5;  Length 365;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-158;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
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Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
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Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
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Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 5
US-10-811-192-2
; Sequence 2, Application US/10811192
; Publication No. US20040268426A1
; GENERAL INFORMATION:
;  APPLICANT: Communi, Didier
;  APPLICANT:  Boeynaems, Jean-Marie
;  APPLICANT:  Pirotton, Sabine
;  APPLICANT:  Parmentier, Marc
;  TITLE OF INVENTION: P2Y4 receptor transgenic and knockout non-human mammals
;  FILE REFERENCE: 9409/2113C
;  CURRENT APPLICATION NUMBER: US/10/811,192
;  CURRENT FILING DATE:  2004-03-26
;  PRIOR APPLICATION NUMBER: 10/753,695
;  PRIOR FILING DATE: 2004-01-08
;  PRIOR APPLICATION NUMBER: 09/077,173
;  PRIOR FILING DATE: 1998-11-12
;  PRIOR APPLICATION NUMBER: PCT/BE96/00123
;  PRIOR FILING DATE: 1996-11-21
;  PRIOR APPLICATION NUMBER: EP 95870124.5
;  PRIOR FILING DATE: 1995-11-21
;  NUMBER OF SEQ ID NOS: 4
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 365
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-811-192-2

  Query Match           100.0%;  Score 1944;  DB 5;  Length 365;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-158;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
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Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 6
US-09-077-173A-2
; Sequence 2, Application US/09077173A
; Publication No. US20030082674A1
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  RECEPTOR AND NUCLEIC ACID MOLECULE ENCODING
;    TITLE OF INVENTION:  SAID RECEPTOR
;    NUMBER OF SEQUENCES:  4
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/077,173A
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  WO PCT/BE 96/00123
;      FILING DATE:
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  365 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-09-077-173A-2

  Query Match           99.8%;  Score 1940;  DB 3;  Length 365;
  Best Local Similarity  100.0%;  Pred. No. 2.8e-158;
  Matches  364;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADR 364
              ||||
Db        361 RADR 364
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RESULT 7
US-10-366-288-42
; Sequence 42, Application US/10366288
; Publication No. US20030216288A1
; GENERAL INFORMATION:
;  APPLICANT: Powell, Douglas
;  APPLICANT:  Weich, Nadine S.
;  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING
;  TITLE OF INVENTION:  AIDS AND HIV-RELATED DISORDERS USING 1414, 1481, 1553,
;  TITLE OF INVENTION:  34021, 1720, 1683, 1552, 1682, 1675, 12825, 9952, 5816,
;  TITLE OF INVENTION:  10002, 1611, 1371, 14324, 126, 270, 312, 167, 326, 18926,
;  TITLE OF INVENTION:  6747, 1793, 1784 OR 2045 MOLECULES
;  FILE REFERENCE: MPI02-025P1RNOMNIM
;  CURRENT APPLICATION NUMBER: US/10/366,288
;  CURRENT FILING DATE:  2003-02-13
;  PRIOR APPLICATION NUMBER: 60/357,391
;  PRIOR FILING DATE: 2002-02-15
;  PRIOR APPLICATION NUMBER: 60/380,249
;  PRIOR FILING DATE: 2002-05-13
;  PRIOR APPLICATION NUMBER: 60/391,306
;  PRIOR FILING DATE: 2002-06-25
;  PRIOR APPLICATION NUMBER: 60/406,297
;  PRIOR FILING DATE: 2002-08-27
;  PRIOR APPLICATION NUMBER: 60/412,007
;  PRIOR FILING DATE: 2002-09-19
;  PRIOR APPLICATION NUMBER: 60/417,508
;  PRIOR FILING DATE: 2002-10-10
;  PRIOR APPLICATION NUMBER: 60/432,318
;  PRIOR FILING DATE: 2002-12-10
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 42
;   LENGTH: 365
;   TYPE: PRT
;   ORGANISM: Homo Sapien
US-10-366-288-42

  Query Match           99.4%;  Score 1932;  DB 4;  Length 365;
  Best Local Similarity  99.2%;  Pred. No. 1.4e-157;
  Matches  362;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||:||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVVSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSTKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGAAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365
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RESULT 8
US-09-964-821B-15
; Sequence 15, Application US/09964821B
; Publication No. US20030186360A1
; GENERAL INFORMATION:
;  APPLICANT: FEDER, J. N.
;  APPLICANT:  MINTIER, G.
;  APPLICANT:  RAMANATHAN, C. S.
;  APPLICANT:  HAWKEN, D.R.
;  APPLICANT:  CACACE, A.
;  APPLICANT:  BARBER, L.
;  APPLICANT:  KORNACKER, M. G.
;  TITLE OF INVENTION: A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRBMY3,
;  TITLE OF INVENTION:  EXPRESSED HIGHLY IN IMMUNE- AND COLON- RELATED TISSUES
;  FILE REFERENCE: D0042NP
;  CURRENT APPLICATION NUMBER: US/09/964,821B
;  CURRENT FILING DATE:  2002-06-10
;  PRIOR APPLICATION NUMBER: 60/235,713
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: 60/261,783
;  PRIOR FILING DATE: 2001-01-17
;  PRIOR APPLICATION NUMBER: 60/305,085
;  PRIOR FILING DATE: 2001-07-13
;  PRIOR APPLICATION NUMBER: 60/313,171
;  PRIOR FILING DATE: 2001-08-17
;  NUMBER OF SEQ ID NOS: 63
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 361
;   TYPE: PRT
;   ORGANISM: RAT
US-09-964-821B-15

  Query Match           82.2%;  Score 1597;  DB 3;  Length 361;
  Best Local Similarity  82.7%;  Pred. No. 8.1e-129;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || | ||| || |       || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              |||||||||||||||||||||||:|||||| | |||| ||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:|||||| ||||:| |:||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296
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Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
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Db        357 EGDRL 361


RESULT 9
US-10-010-568-9
; Sequence 9, Application US/10010568
; Publication No. US20030157598A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRBMY23, EXPRESSED HI
;  TITLE OF INVENTION:  KIDNEY
;  FILE REFERENCE: D0077 NP
;  CURRENT APPLICATION NUMBER: US/10/010,568
;  CURRENT FILING DATE:  2001-12-07
;  PRIOR APPLICATION NUMBER: US 60/251,926
;  PRIOR FILING DATE: 2000-12-07
;  PRIOR APPLICATION NUMBER: US 60/269,795
;  PRIOR FILING DATE: 2001-02-14
;  NUMBER OF SEQ ID NOS: 55
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
;   LENGTH: 361
;   TYPE: PRT
;   ORGANISM: RATTUS NORVEGICUS
US-10-010-568-9

  Query Match           82.2%;  Score 1597;  DB 4;  Length 361;
  Best Local Similarity  82.7%;  Pred. No. 8.1e-129;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| || |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||| | |||| ||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:|||||| ||||:| |:||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361


RESULT 10
US-10-268-332-15
; Sequence 15, Application US/10268332
; Publication No. US20030175748A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRBMY3, EXPRESSED HIGHL
;  TITLE OF INVENTION:  IMMUNE- AND COLON- RELATED TISSUES
;  FILE REFERENCE: D0042A CIP
;  CURRENT APPLICATION NUMBER: US/10/268,332
;  CURRENT FILING DATE:  2002-10-10
;  PRIOR APPLICATION NUMBER: U.S. 60/235,713
;  PRIOR FILING DATE: 2000-09-27
;  PRIOR APPLICATION NUMBER: U.S. 60/261,783
;  PRIOR FILING DATE: 2001-01-16
;  PRIOR APPLICATION NUMBER: U.S. 60/305,085
;  PRIOR FILING DATE: 2001-07-13
;  PRIOR APPLICATION NUMBER: U.S. 60/313,171
;  PRIOR FILING DATE: 2001-08-17
;  PRIOR APPLICATION NUMBER: U.S. 09/964,821
;  PRIOR FILING DATE: 2001-09-26
;  NUMBER OF SEQ ID NOS: 66
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 15
;   LENGTH: 361
;   TYPE: PRT
;   ORGANISM: Rat
US-10-268-332-15

  Query Match           82.2%;  Score 1597;  DB 4;  Length 361;
  Best Local Similarity  82.7%;  Pred. No. 8.1e-129;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| || |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||:|||||| | |||| ||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:|||||| ||||:| |:||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361


RESULT 11
US-10-375-157-9
; Sequence 9, Application US/10375157
; Publication No. US20030224458A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRBMY23, EXPRESSED
;  TITLE OF INVENTION:  HIGHLY IN KIDNEY
;  FILE REFERENCE: D0077A CIP
;  CURRENT APPLICATION NUMBER: US/10/375,157
;  CURRENT FILING DATE:  2003-02-26
;  PRIOR APPLICATION NUMBER: US 60/251,926
;  PRIOR FILING DATE: 2000-12-07
;  PRIOR APPLICATION NUMBER: US 10/010,568
;  PRIOR FILING DATE: 2001-12-07
;  PRIOR APPLICATION NUMBER: US 60/269,795
;  PRIOR FILING DATE: 2001-02-14
;  NUMBER OF SEQ ID NOS: 65
;  SOFTWARE: PatentIn version 3.2
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; SEQ ID NO 9
; LENGTH: 361
; TYPE: PRT
; ORGANISM: RATTUS NORVEGICUS
US-10-375-157-9

Query Match 82.2%; Score 1597; DB 4; Length 361;
Best Local Similarity 82.7%; Pred. No. 8.1e-129;
Matches 302; Conservative 20; Mismatches 39; Indels 4; Gaps 1;

```
Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||  | |||| ||||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:|||||| ||||:| |:|||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||||||| ||||:||| |||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361
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RESULT 12
US-10-072-012-521
; Sequence 521, Application US/10072012
; Publication No. US20040033493A1
; GENERAL INFORMATION:
; APPLICANT: Tchernev, Velizar
; APPLICANT: Spytek, Kimberly
; APPLICANT: Zerhusen, Bryan
; APPLICANT: Patturajan, Meera
; APPLICANT: Shimkets, Richard
; APPLICANT: Li, Li
; APPLICANT: Gangolli, Esha
; APPLICANT: Padigaru, Muralidhara
; APPLICANT: Anderson, David W.
; APPLICANT: Rastelli, Luca
; APPLICANT: Miller, Charles E.
; APPLICANT: Gerlach, Valerie
; APPLICANT: Taupier Jr, Raymond J.
; APPLICANT: Gusev, Vladimir Y.
; APPLICANT: Colman, Steven D.
; APPLICANT: Wolenc, Adam R.
; APPLICANT: Pena, Carol E. A
; APPLICANT: Furtak, Katarzyna
; APPLICANT: Grosse, William M.
; APPLICANT: Alsobrook II, John P.
; APPLICANT: Lepley, Denise M.
; APPLICANT: Rieger, Daniel K.
; APPLICANT: Burgess, Catherine E.
; TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
; FILE REFERENCE: 21402-258
; CURRENT APPLICATION NUMBER: US/10/072,012
; CURRENT FILING DATE: 2002-01-31
; PRIOR APPLICATION NUMBER: 60/265,102
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: 60/265,514
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,517
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,412
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,395
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/266,406
; PRIOR FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: 60/266,767
; PRIOR FILING DATE: 2001-02-05
; PRIOR APPLICATION NUMBER: 60/267,057
; PRIOR FILING DATE: 2001-02-07
; PRIOR APPLICATION NUMBER: 60/266,975
; PRIOR FILING DATE: 2001-02-07
; PRIOR APPLICATION NUMBER: 60/267,459
; PRIOR FILING DATE: 2001-02-08
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 1391
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 521
; LENGTH: 361
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-10-072-012-521

Query Match 82.2%; Score 1597; DB 4; Length 361;
Best Local Similarity 82.7%; Pred. No. 8.1e-129;
Matches 302; Conservative 20; Mismatches 39; Indels 4; Gaps 1;

```
Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||:|||||  | |||| ||||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:|||||| ||||:| |:|||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||||||| ||||:||| |||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361
```

RESULT 13
US-10-775-965-15
; Sequence 15, Application US/10775965
; Publication No. US20040209808A1
; GENERAL INFORMATION:
; APPLICANT: Bristol-Myers Squibb Company
; APPLICANT: Kornacker, Michael
; TITLE OF INVENTION: MODULATORS OF HUMAN G-PROTEIN COUPLED RECEPTORS
; FILE REFERENCE: D0286 NP
; CURRENT APPLICATION NUMBER: US/10/775,965
; CURRENT FILING DATE: 2004-02-10
; PRIOR APPLICATION NUMBER: U.S. 60/446,655
; PRIOR FILING DATE: 2003-02-11

```
;  NUMBER OF SEQ ID NOS: 112
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 15
;   LENGTH: 361
;   TYPE: PRT
;   ORGANISM: rat
US-10-775-965-15

  Query Match             82.2%;  Score 1597;  DB 4;  Length 361;
  Best Local Similarity   82.7%;  Pred. No. 8.1e-129;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |     || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||| | |||| ||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:|||||| ||||:| |:||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361


RESULT 14
US-09-745-842-15
; Sequence 15, Application US/09745842
; Publication No. US20030170777A1
; GENERAL INFORMATION:
;  APPLICANT:  Conley, Pamela B.
;  APPLICANT:  Jantzen, Hans-Michael
;  APPLICANT:  Ramakrishnan-DuBridge, Vanitha
;  APPLICANT:  Julius, David
;  APPLICANT:  Hollopeter, Gunter
;  APPLICANT:  COR Therapeutics, Inc.
;  TITLE OF INVENTION:  P2Y12 Receptor
;  FILE REFERENCE:  44481-5053-US
;  CURRENT APPLICATION NUMBER: US/09/745,842
;  CURRENT FILING DATE:  2000-12-26
;  PRIOR APPLICATION NUMBER:  US 60/171,622
;  PRIOR FILING DATE:  1999-12-23
;  NUMBER OF SEQ ID NOS:  21
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 374
;   TYPE: PRT
;   ORGANISM: Meleagris gallopavo
;   FEATURE:
;   OTHER INFORMATION: Turkey P2Y nucleotide receptor; tp2ynovel
US-09-745-842-15

  Query Match             58.0%;  Score 1127.5;  DB 3;  Length 374;
  Best Local Similarity   59.3%;  Pred. No. 1.8e-88;
  Matches  208;  Conservative   56;  Mismatches   70;  Indels   17;  Gaps    4;

Qy          9 LRSLGLSP----------GPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
              :|    |:|          |  ::  |  | |:|:|||||||:|| :|||:|| ||:  :|
Db          5 VRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMW 64

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
              :|: |:|||:|| ||||:||:|||||| |||||:|||| |:|||   || |||||| |
Db         65 IFVSRMRPWNATTTYMFNLAISDTLYVFSLPTLVYYYADRNNWPFGKVFCKIVRFLFYAN 124

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              || |:||||||||||:|||||:|:|:| : : | |:|: |||||  ||:||| |||||:
Db        125 LYSSILFLTCISVHRYMGICHPIRSLKWVKTKHARLICVGVWLVVTICLIPNLIFVTTSS 184

Qy        179 KGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSA 235
              |  : ||||||:|||||||||:||::| ||||:| || :||| |||:|| :   | |
Db        185 KDNSTLCHDTTKPEEFDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRSFPSPSPR 244

Qy        236 QSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLA 295
              | : ||:: | :|||||:|||||||||:|| :|  :|||: |||:|  ||:|||||
Db        245 VPSYKKRSIKMIIIVLTVFAICFVPFHITRTLYYTSRYFQADCQTLNIINFTYKITRPLA 304

Qy        296 SANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASS-LALVSLPEDSS 345
              | ||||||:|| : ||||| :||:   |  :||  :| |||||  |||
Db        305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352


RESULT 15
US-10-010-568-11
; Sequence 11, Application US/10010568
; Publication No. US20030157598A1
; GENERAL INFORMATION:
;  APPLICANT: Bristol-Myers Squibb Company
;  TITLE OF INVENTION: A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR, HGPRBMY23, EXPRESSED
;  TITLE OF INVENTION:  KIDNEY
;  FILE REFERENCE: D0077 NP
;  CURRENT APPLICATION NUMBER: US/10/010,568
;  CURRENT FILING DATE:  2001-12-07
;  PRIOR APPLICATION NUMBER: US 60/251,926
;  PRIOR FILING DATE: 2000-12-07
;  PRIOR APPLICATION NUMBER: US 60/269,795
;  PRIOR FILING DATE: 2001-02-14
;  NUMBER OF SEQ ID NOS: 55
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 11
;   LENGTH: 374
;   TYPE: PRT
;   ORGANISM: MELEAGRIS GALLOPAVO
US-10-010-568-11

  Query Match             58.0%;  Score 1127.5;  DB 4;  Length 374;
  Best Local Similarity   59.3%;  Pred. No. 1.8e-88;
  Matches  208;  Conservative   56;  Mismatches   70;  Indels   17;  Gaps    4;

Qy          9 LRSLGLSP----------GPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
              :|    |:|          |  ::  |  | |:|:|||||||:|| :|||:||. ||:  :|
Db          5 VRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMW 64

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
              :|: |:|||:|| ||||:||:|||||| |||||:|||| |:|||   || |||||| |
Db         65 IFVSRMRPWNATTTYMFNLAISDTLYVFSLPTLVYYYADRNNWPFGKVFCKIVRFLFYAN 124

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              || |:||||||||||:|||||:|:|:| : : | |:|: |||||  ||:||| |||||:
Db        125 LYSSILFLTCISVHRYMGICHPIRSLKWVKTKHARLICVGVWLVVTICLIPNLIFVTTSS 184

Qy        179 KGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSA 235
              |  : ||||||:|||||||||:||::| ||||:| || :||| |||:|| :   | |
Db        185 KDNSTLCHDTTKPEEFDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRSFPSPSPR 244

Qy        236 QSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLA 295
              | : ||:: | :|||||:|||||||||:|| :|  :|||: |||:|  ||:|||||
Db        245 VPSYKKRSIKMIIIVLTVFAICFVPFHITRTLYYTSRYFQADCQTLNIINFTYKITRPLA 304

Qy        296 SANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASS-LALVSLPEDSS 345
              | ||||||:|| : ||||| :||:   |  :||  :| |||||  |||
Db        305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352
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Db 305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352

Search completed: April 4, 2006, 20:29:19
Job time : 168 secs

GenCore version 5.1.7

OM protein - protein search, using sw model

Run on: April 4, 2006, 20:06:42 ; Search time 189 Seconds
(without alignments)
848.536 Million cell updates/sec

Title: US-10-811-198-2
Perfect score: 1944
Sequence: 1 MASTESSLLRSLGLSPGPGS.....CRWAATPQDSSCSTPRADRL 365

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1944	100.0	365	2	AAW23606	Aaw23606 Human P2Y
2	1944	100.0	365	4	AAE04391	Aae04391 Human P2Y
3	1944	100.0	365	6	ABP81923	Abp81923 Human pyr
4	1944	100.0	365	8	ADO29598	Ado29598 Human GPC
5	1944	100.0	365	8	ADP49193	Adp49193 Human P2Y
6	1932	99.4	365	7	ADE40463	Ade40463 Human pyr
7	1653.5	85.1	316	8	ADR89630	Adr89630 Human uri
8	1597	82.2	361	5	ADI16985	Adi16985 Rat NOVX
9	1597	82.2	361	7	ADH69290	Adh69290 Rat orpha
10	1597	82.2	361	8	ADF91782	Adf91782 Rat orpha
11	1597	82.2	361	8	ADR89629	Adr89629 Rat G-pro
12	1597	82.2	361	8	ADS84264	Ads84264 Rat G pro
13	1561	80.3	361	8	ADO29599	Ado29599 Mouse GPC
14	1127.5	58.0	374	4	AAE04390	Aae04390 Turkey P2
15	1127.5	58.0	374	5	ADI16982	Adi16982 Turkey NO
16	1127.5	58.0	374	8	ADR89631	Adr89631 Turkey G-
17	1007.5	51.8	537	5	AAU74538	Aau74538 Human P2Y
18	1007.5	51.8	537	5	ADI16981	Adi16981 Human NOV
19	1007.5	51.8	537	8	ADR89632	Adr89632 Xenopus P
20	965	49.6	377	4	AAE01144	Aae01144 Human pur
21	965	49.6	377	4	AAE01143	Aae01143 Human pur
22	965	49.6	377	4	AAE04392	Aae04392 Human P2-
23	965	49.6	377	6	ABP81866	Abp81866 Human pur
24	965	49.6	377	7	ADE62766	Ade62766 Human Pro
25	965	49.6	377	8	ADO29596	Ado29596 Human GPC
26	965	49.6	377	8	ADP49189	Adp49189 Human P2Y
27	962.5	49.5	373	5	AAE20604	Aae20604 Mus muscu
28	962.5	49.5	373	8	ADO29597	Ado29597 Mouse GPC
29	951	48.9	341	6	ABU63310	Abu63310 Mouse P u
30	950	48.9	374	7	ADE62764	Ade62764 Rat Prote
31	950	48.9	374	8	ADR89633	Adr89633 Rat P2U p
32	928	47.7	375	2	AAR72457	Aar72457 Human P20
33	642.5	33.1	302	8	ADO30396	Ado30396 Mouse GPC
34	641.5	33.0	373	4	AAE04389	Aae04389 Human P2-
35	641.5	33.0	373	5	ABP54316	Abp54316 Human P2Y
36	641.5	33.0	373	5	AAU10983	Aau10983 Purinergi
37	641.5	33.0	373	5	AAU10984	Aau10984 Purinergi
38	641.5	33.0	373	6	ABP81867	Abp81867 Human pur
39	641.5	33.0	373	7	ADD46171	Add46171 Human Pro
40	641.5	33.0	373	8	ADF43210	Adf43210 Human P2R
41	641.5	33.0	373	8	ADO29592	Ado29592 Human GPC
42	641.5	33.0	373	8	ADP49187	Adp49187 Human P2Y
43	641.5	33.0	373	8	ADR89628	Adr89628 Human pur
44	641.5	33.0	373	9	AEA50202	Aea50202 P2RY1. 8/
45	634.5	32.6	373	5	AAU10985	Aau10985 Purinergi

ALIGNMENTS

RESULT 1
AAW23606
ID AAW23606 standard; protein; 365 AA.
XX
AC AAW23606;
XX
DT 31-MAR-1998 (first entry)
XX
DE Human P2Y4 receptor polypeptide.
XX
KW Receptor; P2Y4; pyrimidine binding; uridine triphosphate; UTP.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 35. .61
FT /note= "membrane spanning domain I"
FT Domain 72. .95
FT /note= "membrane spanning domain II"
FT Domain 113. .131
FT /note= "membrane spanning domain III"
FT Domain 151. .174
FT /note= "membrane spanning domain IV"
FT Domain 200. .224
FT /note= "membrane spanning domain V"
FT Modified-site 238
FT /note= "potential protein kinase C (PKC) phosphorylation
FT site"
FT Modified-site 243
FT /note= "potential calmodulin-dependent protein kinase and
FT protein kinase C (PKC) phosphorylation site"
FT Domain 247. .271
FT /note= "membrane spanning domain VI"
FT Modified-site 262
FT /note= "conserved His residue which is reported to play a
FT role in the P2Y2 receptor activation by ATP and UTP"
FT Modified-site 265
FT /note= "conserved Arg residue which is reported to play a
FT role in the P2Y2 receptor activation by ATP and UTP"
FT Domain 288. .310
FT /note= "membrane spanning domain VII"
FT Modified-site 289
FT /note= "conserved Lys residue which is reported to play a
FT role in the P2Y2 receptor activation by ATP and UTP"
FT Modified-site 292
FT /note= "conserved Arg residue which is reported to play a
FT role in the P2Y2 receptor activation by ATP and UTP"

```
FT   Modified-site   345
FT                   /note= "potential protein kinase C (PKC) phosphorylation
FT                   site"
FT   Modified-site   359
FT                   /note= "potential protein kinase C (PKC) phosphorylation
FT                   site"
XX
PN   WO9719170-A1.
XX
PD   29-MAY-1997.
XX
PF   21-NOV-1996;   96WO-BE000123.
XX
PR   21-NOV-1995;   95EP-00870124.
XX
PA   (EURO-) EUROSCREEN SA.
XX
PI   Communi D,  Pirotton S,  Parmentier M,  Boeynaems J;
XX
DR   WPI; 1997-402177/37.
DR   N-PSDB; AAT74321.
XX
PT   Receptor having preference for pyrimidine over purine nucleotide(s) -
PT   especially uridine tri:phosphate, agonist and antagonists of which are
PT   useful in treatment of cystic fibrosis.
XX
PS   Claim 1; Fig 1; 56pp; English.
XX
CC   This sequence represents a novel human P2 receptor, P2Y4, which has a
CC   preference for pyrimidine binding, especially uridine triphosphate. This
CC   receptor could be used to screen for novel drugs which specifically bind
CC   to it. Transgenic animals could be used to determine the physiological
CC   effects of expressing varying levels of the receptor or to identify novel
CC   agonists or antagonists. The agonists and antagonists of human P2Y4 may
CC   be used, e.g., in treatment of cystic fibrosis
XX
SQ   Sequence 365 AA;

  Query Match             100.0%;  Score 1944;  DB 2;  Length 365;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-203;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 2
AAE04391
```

```
ID   AAE04391 standard; protein; 365 AA.
XX
AC   AAE04391;
XX
DT   04-SEP-2001  (first entry)
XX
DE   Human P2Y4 pyrimidinergic receptor.
XX
KW   Human; P2-purinergic receptor; P2Y1; cardiant; vasotropic; thrombolytic;
KW   cerebroprotective; gynaecological; ADP; adenosine 5'-diphosphate; angina;
KW   myocardial infarction; ischaemic attack; preeclampsia; bleeding disorder;
KW   carotid endarterectomy; vascular graft surgery; brain disorder; migraine;
KW   vascular injury; schizophrenia; eating disorder; depression; angioplasty;
KW   peripheral vascular disease; platelet aggregation; restenotic; embolism;
KW   thrombocytopaenic purpura; stroke; pertussis toxin-sensitive G protein;
KW   Gi; disseminated intravascular coagulation; P2Y4 pyrimidinergic receptor;
KW   thrombosis.
XX
OS   Homo sapiens.
XX
PN   WO200146454-A1.
XX
PD   28-JUN-2001.
XX
PF   26-DEC-2000; 2000WO-US034998.
XX
PR   23-DEC-1999;   99US-0171622P.
XX
PA   (CORT-) COR THERAPEUTICS INC.
XX
PI   Conley PB,  Jantzen H,  Ramakrishnan-Dubridge V,  Julius DJ;
PI   Hollopeter G;
XX
DR   WPI; 2001-418082/44.
XX
PT   Novel isolated ADP receptor, termed P2Y12 receptor polypeptide, useful
PT   for identifying binding partners and for diagnostic applications.
XX
PS   Disclosure; Page 97-98; 108pp; English.
XX
CC   The invention relates to ADP (adenosine 5'-diphosphate) receptor, termed
CC   as P2Y12 receptor and its corresponding cDNA molecule. P2Y12 receptor is
CC   the subtype of P2-purinergic receptor. The P2Y12 receptor is expressed
CC   selectively in the platelets and brain, and couples to a pertussis toxin-
CC   sensitive G protein (Gi). P2Y12 receptor is a G protein-coupled receptor
CC   that responds to ADP. The invention also relates to a method for
CC   identifying an agent which is useful for modulating acute myocardial
CC   infarction, unstable angina, chronic stable angina, transient ischaemic
CC   attacks, strokes, peripheral vascular disease, preeclampsia, deep venous
CC   thrombosis, embolism, disseminated intravascular coagulation, thrombotic
CC   thrombocytopaenic purpura or a bleeding disorder; thrombotic and
CC   restenotic complications following angioplasty, carotid endarterectomy,
CC   post CABG (coronary artery bypass graft) surgery, vascular graft surgery,
CC   stent placements or insertion of endovascular devices and prostheses.
CC   P2Y12 receptor is useful for identifying binding partners and for
CC   diagnostic applications. P2Y12 receptor provides targets for screening
CC   synthetic small molecules and combinatorial or naturally occurring
CC   compound libraries to regulate platelet aggregation, vascular injury, or
CC   disease as well as schizophrenia, eating disorders, depression, migraine
CC   and other brain disorders. The present sequence is human P2Y4
CC   pyrimidinergic receptor related to the invention
XX
SQ   Sequence 365 AA;

  Query Match             100.0%;  Score 1944;  DB 4;  Length 365;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-203;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy         121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy         181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy         241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy         301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy         361 RADRL 365
                |||||
Db         361 RADRL 365
```

RESULT 3
ABP81923
ID ABP81923 standard; protein; 365 AA.
XX
AC ABP81923;
XX
DT 04-MAR-2003 (first entry)
XX
DE Human pyrimidinergic receptor P2Y4 protein SEQ ID NO:332.
XX
KW G protein-coupled receptor; GPCR; antigenic peptide; gene therapy;
KW G protein-coupled receptor modulator; antibody; immune-related disease;
KW growth-related disease; cell regeneration-related disease; AIDS; cancer;
KW immunological-related cell proliferative disease; autoimmune disease;
KW Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy;
KW osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes;
KW graft versus host disease; Parkinson's disease; multiple sclerosis; pain;
KW psoriasis; anxiety; depression; schizophrenia; dementia; memory loss;
KW mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea;
KW hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
KW ulcer.
XX
OS Homo sapiens.
XX
PN WO200261087-A2.
XX
PD 08-AUG-2002.
XX
PF 19-DEC-2001; 2001WO-US050107.
XX
PR 19-DEC-2000; 2000US-0257144P.
XX
PA (LIFE-) LIFESPAN BIOSCIENCES INC.
XX
PI Burmer GC, Roush CL, Brown JP;
XX
DR WPI; 2003-046718/04.
DR N-PSDB; ABZ42771.
XX
PT New isolated antigenic peptides e.g., for G protein-coupled receptors
PT (GPCR), useful for diagnosing and designing drugs for treating conditions
PT in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or
PT autoimmune diseases.
XX
PS Disclosure; Fig 1; 523pp; English.
XX
CC The present invention describes antigenic peptides (I) comprising: (a)
CC any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino
CC acids. Also described: (1) an assay for the detection of a particular G
CC protein-coupled receptor (GPCR) or a candidate polypeptide in a sample;
CC and (2) an isolated antibody having high specificity and high affinity or
CC avidity for a particular GPCR. (I) can be used as GPCR modulators and in
CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an
CC antibody against a particular GPCR, and in the production of specific
CC antibodies. The peptides and antibodies are also useful for detecting the
CC presence or absence of corresponding GPCRs. The antigenic peptides for
CC GPCRs and antibodies are useful for diagnosing and designing drugs for
CC treating immune-related diseases, growth-related diseases, cell
CC regeneration-related disease, immunological-related cell proliferative
CC diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease,
CC atherosclerosis, bacterial, fungal, protozoan or viral infections,
CC osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute
CC inflammation, allergies, Crohn's disease, diabetes, graft versus host
CC disease, Parkinson's disease, multiple sclerosis, pain, psoriasis,
CC anxiety, depression, schizophrenia, dementia, mental retardation, memory
CC loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension,
CC hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or
CC any other disorder in which GPCRs are involved. The antibodies may be
CC used in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode
CC GPCR proteins given in ABP81675 to ABP82018, which are used in the
CC exemplification of the present invention
XX
SQ Sequence 365 AA;

```
  Query Match             100.0%;  Score 1944;  DB 6;  Length 365;
  Best Local Similarity   100.0%;  Pred. No. 1.1e-203;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy          61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy         121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy         181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy         241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy         301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy         361 RADRL 365
                |||||
Db         361 RADRL 365
```

RESULT 4
ADO29598
ID ADO29598 standard; protein; 365 AA.
XX
AC ADO29598;
XX
DT 29-JUL-2004 (first entry)
XX
DE Human GPCR P2RY4, SEQ ID NO:700.
XX
KW G protein-coupled receptor; GPCR; drug screening; diagnosis;
KW transgenic mouse; neurological disorder; adrenal gland disorder;
KW colon disorder; intestinal disorder; cardiovascular disorder;
KW muscular disorder; blood disorder; immune disorder; bone disorder;
KW joint disorder; metabolic disorder; nutritive disorder; cancer;

KW kidney disorder; liver disorder; lung disorder; breast disorder;
KW ovary disorder; uterus disorder; prostate disorder; testis disorder;
KW skin disorder; stomach disorder; pancreas disorder; spleen disorder;
KW thymus disorder; thyroid disorder; antiparkinsonian; antimanic;
KW cytostatic; antiinflammatory; vasotropic; antianginal; antiarrhythmic;
KW CNS; central nervous system; respiratory; antidiarrhoeic; antidiabetic;
KW virucide; hepatotropic; antibacterial; antianaemic; antiseborrhoeic;
KW dermatological; antiulcer; antithyroid; antiallergic; anorectic;
KW immunosuppressive; nephrotropic; gene therapy; GPCR modulator; human;
KW receptor.
XX
OS Homo sapiens.
XX
PN WO2004040000-A2.
XX
PD 13-MAY-2004.
XX
PF 09-SEP-2003; 2003WO-US028226.
XX
PR 09-SEP-2002; 2002US-0409303P.
PR 09-APR-2003; 2003US-0461329P.
XX
PA (PRIM-) PRIMAL INC.
XX
PI Gaitanaris GA, Bergmann JE, Gragerov A, Hohmann J, Li F;
PI Madisen L, Mcilwain KL, Pavlova MN, Vassilatis D, Zeng H;
XX
DR WPI; 2004-390329/36.
DR N-PSDB; ADO30018.
XX
PT Novel mammalian G protein coupled receptors, useful for identifying
PT compounds that modulates diagnosing and treating disease condition
PT associated with GPCR dysfunction e.g. autoimmune diseases, angina
PT pectoris, Parkinson's disease.
XX
PS Claim 151; SEQ ID NO 700; 542pp; English.
XX
CC The invention relates to human and mouse G protein-coupled receptors
CC (GPCRs) and nucleic acids encoding them. The invention also relates to
CC sequences at least 90% identical to the GPCR proteins and nucleic acids
CC of the invention; methods of treating, preventing or diagnosing diseases
CC associated with GPCRs of the invention; methods of screening for
CC compounds useful in the treatment of GPCR-related diseases; a transgenic
CC mouse comprising a GPCR gene of the invention; a mouse comprising a
CC mutation in a GPCR transgene or in an endogenous GPCR gene; cells derived
CC from the trasngenic mice; kits comprising several mice, each of which has
CC a mutation in a different GPCR gene of the invention; and kits comprising
CC probes which hybridise to GPCR polynucleotides of the invention. The
CC invention further discloses variants of the GPCR polypeptides and vectors
CC comprising a GPCR nucleic acid. The GPCR nucleic acids and proteins may
CC be used in the diagnosis, treatment or prevention of a wide variety of
CC diseases including neurological disorders (e.g., Alzheimer's disease,
CC depression, diabetic neuropathy, Parkinson's disease or schizophrenia);
CC disorders of the adrenal gland; disorders of the colon or intestine
CC (e.g., Crohn's disease, diarrhoea, food poisoning or irritable bowel
CC syndrome); cardiovascular disorders (e.g., angina, cardiac arrhythmia or
CC myocardial infarction); muscular disorders; blood disorders (e.g.,
CC anaemia or leukaemia); immune disorders (e.g., autoimmune disorders or
CC AIDS); bone and joint disorders (e.g., osteoarthritis, rheumatoid
CC arthritis, gout or osteoporosis); metabolic or nutritive disorders (e.g.,
CC obesity, enzyme deficiency-related diseases or vitamin deficiency-related
CC diseases); and disorders of the kidney, liver, lung, breast, ovary,
CC uterus, prostate, testis, skin, stomach, pancreas, spleen, thymus and
CC thyroid (e.g., cancers). The present sequence represents a GPCR of the
CC invention. Note: The full sequence data for this patent did not form part
CC of the printed specification; those sequences not shown were obtained in
CC electronic format directly from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 365 AA;

Query Match 100.0%; Score 1944; DB 8; Length 365;
Best Local Similarity 100.0%; Pred. No. 1.1e-203;

Matches 365; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365
```

RESULT 5
ADP49193
ID ADP49193 standard; protein; 365 AA.
XX
AC ADP49193;
XX
DT 26-AUG-2004 (first entry)
XX
DE Human P2Y4 purinergic receptor protein sequence for odour modulation.
XX
KW odour sensitivity; P2X purinergic receptor; P2Y purinergic receptor;
KW signal transduction pathway; olfactory signalling; micro-array.
XX
OS Homo sapiens.
XX
PN WO2004047749-A2.
XX
PD 10-JUN-2004.
XX
PF 21-NOV-2003; 2003WO-US037389.
XX
PR 21-NOV-2002; 2002US-0428140P.
XX
PA (UTAH) UNIV UTAH RES FOUND.
XX
PI Lucero M, Hegg C;
XX
DR WPI; 2004-460642/43.
XX
PT Modulating odor sensitivity in a subject, comprises administering a
PT composition comprising an agonist or antagonist of P2X or P2Y purinergic
PT receptor to the subject.
XX
PS Disclosure; SEQ ID NO 22; 108pp; English.
XX
CC The invention relates to a method of modulating (M1) odour sensitivity in
CC a subject, by administering a composition which is an agonist or
CC antagonist of a P2X or P2Y purinergic receptor. (M1) is useful for
CC modulating odour sensitivity in a subject (claimed). The compositions
CC used for modulating odour sensitivity in a subject are useful for
CC studying the signal transduction pathways related to olfactory signaling.
CC The compositions are also useful as reagents in micro-arrays or as

```
CC   reagents to probe or analyze existing micro-arrays. This sequence
CC   corresponds to the human P2Y4 protein sequence.
XX
SQ   Sequence 365 AA;

  Query Match          100.0%;  Score 1944;  DB 8;  Length 365;
  Best Local Similarity  100.0%;  Pred. No. 1.1e-203;
  Matches  365;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 6
ADE40463
ID   ADE40463 standard; protein; 365 AA.
XX
AC   ADE40463;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human pyrimidinergic GPCR P2Y4 (gene ID 326) protein.
XX
KW   AIDS; acquired immunodeficiency syndrome; human immunodeficiency virus;
KW   HIV-related disorder; differential expression; drug screening;
KW   viral replication modulation; diagnosis; prognosis; predisposition;
KW   anti-HIV; gene therapy; antisense therapy; human;
KW   pyrimidinergic GPCR P2Y4; receptor.
XX
OS   Homo sapiens.
XX
PN   WO2003070883-A2.
XX
PD   28-AUG-2003.
XX
PF   13-FEB-2003; 2003WO-US004246.
XX
PR   15-FEB-2002; 2002US-0357391P.
PR   13-MAY-2002; 2002US-0380249P.
PR   25-JUN-2002; 2002US-0391306P.
PR   27-AUG-2002; 2002US-0406297P.
PR   19-SEP-2002; 2002US-0412007P.
PR   10-OCT-2002; 2002US-0417508P.
PR   10-DEC-2002; 2002US-0432318P.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Powell DM,  Weich NS;
XX
DR   WPI; 2003-671808/63.
DR   N-PSDB; ADE40462.
XX
PT   Identifying a compound capable of diagnosing, preventing or treating AIDS
PT   or an HIV-related disorder comprises assaying the ability of the compound
PT   to modulate e.g. 1414, 1481 or 1553 nucleic acid expression or
PT   polypeptide activity.
XX
PS   Claim 1; SEQ ID NO 42; 167pp; English.
XX
CC   The invention relates to a method of identifying a compound useful in the
CC   treatment of AIDS (acquired immunodeficiency syndrome) or an HIV (human
CC   immunodeficiency virus)-related disorder. The invention involves assaying
CC   the ability of a test compound to modulate the activity or expression of
CC   26 human proteins. These proteins and nucleic acids encoding them
CC   (ADE40422-ADE40473) are differentially expressed in tissues relating to
CC   AIDS or an HIV-related disorder compared to their expression in normal
CC   tissues. The invention also relates to the use of the compounds
CC   identified to modulate viral replication in a cell and to treat a patient
CC   with AIDS or an HIV-related disorder. The invention further discloses
CC   methods for the diagnostic evaluation and prognosis of various HIV-
CC   related disorders, and for the identification of individuals exhibiting a
CC   predisposition to such conditions. The modulatory compounds identified
CC   using the method of the invention may be small organic molecules,
CC   peptides, antibodies or antisense nucleic acid molecules. The methods of
CC   the invention are useful in diagnosing, preventing or treating AIDS or
CC   HIV-related disorders. The present sequence represents a human protein
CC   which is differentially expressed in AIDS or HIV-related disorders.
XX
SQ   Sequence 365 AA;

  Query Match          99.4%;  Score 1932;  DB 7;  Length 365;
  Best Local Similarity  99.2%;  Pred. No. 2.3e-202;
  Matches  362;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              ||||||||||||||||||||||||||||:||||||||||||||||||||||||||||||
Db         61 IFRLRPWDATATYMFHLALSDTLYVVSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||| ||
Db        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSTKG 180

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||:||||||
Db        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGAAQSSSR 240

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360

Qy        361 RADRL 365
              |||||
Db        361 RADRL 365


RESULT 7
ADR89630
ID   ADR89630 standard; protein; 316 AA.
XX
AC   ADR89630;
XX
DT   02-DEC-2004  (first entry)
XX
```

```
DE   Human uridine nucleotide receptor.
XX
KW   HGPRBMY23; G-protein coupled receptor; receptor; human;
KW   uridine nucleotide receptor.
XX
OS   Homo sapiens.
XX
PN   WO2004076636-A2.
XX
PD   10-SEP-2004.
XX
PF   26-FEB-2004; 2004WO-US005535.
XX
PR   26-FEB-2003; 2003US-00375157.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
XX
PI   Barber LE,  Cacace A,  Feder JN,  Nelson TC,  Ramanathan CS;
PI   Ryseck R,  Neubauer MG,  Kornacker MG;
XX
DR   WPI; 2004-653403/63.
DR   SWISSPROT; P51582.
XX
PT   New nucleic acid molecules encoding HGPRBMY23 polypeptides of the G-
PT   protein coupled receptor superfamily, useful for diagnosing, treating, or
PT   ameliorating pulmonary, renal, or proliferative disorders, e.g. cancer.
XX
PS   Disclosure; SEQ ID NO 10; 370pp; English.
XX
CC   The present sequence is that of human uridine nucleotide receptor. The
CC   sequence shows 32% identity and 40% similarity to the protein sequence
CC   ADR89622 of novel human G-protein coupled receptor HGPRBMY23. The
CC   invention provides HGPRBMY23 polypeptides and polynucleotides, vectors,
CC   host cells, antibodies, and recombinant and synthetic methods for
CC   producing the polypeptides. Methods are provided for identifying agonists
CC   and antagonists of HGPRBMY23. The polypeptides, polynucleotides,
CC   modulators and methods are useful for diagnosing, treating or
CC   ameliorating a disease or disorder related to HGPRBMY23, particularly
CC   renal diseases and/or disorders, colon cancer, breast cancer, and
CC   diseases and disorders related to aberrant NFkappaB modulation.
XX
SQ   Sequence 316 AA;

  Query Match           85.1%;  Score 1653.5;  DB 8;  Length 316;
  Best Local Similarity  86.6%;  Pred. No. 6e-172;
  Matches  316;  Conservative    0;  Mismatches    0;  Indels   49;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              ||||||||||||||||||||||||||||||||
Db          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFK-------------------------- 34

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
                                 ||||||||||||||||||||||||||||||||||||
Db         35 ----------------------YVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 71

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         72 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 131

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        132 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 191

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        192 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 251

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        252 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 311

Qy        361 RADRL 365
              |||||
Db        312 RADRL 316


RESULT 8
ADI16985
ID   ADI16985 standard; protein; 361 AA.
XX
AC   ADI16985;
XX
DT   15-APR-2004  (first entry)
XX
DE   Rat NOVX protein homologue SeqID 521.
XX
KW   rat; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
KW   inflammation; autoimmune disorder; allergy; blood disorder;
KW   acquired immunodeficiency syndrome; AIDS; obesity; asthma;
KW   immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
KW   Alzheimer's disease; infection; str.
XX
OS   Rattus norvegicus.
XX
PN   WO200268649-A2.
XX
PD   06-SEP-2002.
XX
PF   31-JAN-2002; 2002WO-US002785.
XX
PR   31-JAN-2001; 2001US-0265395P.
PR   31-JAN-2001; 2001US-0265412P.
PR   31-JAN-2001; 2001US-0265514P.
PR   31-JAN-2001; 2001US-0265517P.
PR   02-FEB-2001; 2001US-0266406P.
PR   05-FEB-2001; 2001US-0266767P.
PR   07-FEB-2001; 2001US-0266975P.
PR   07-FEB-2001; 2001US-0267057P.
PR   08-FEB-2001; 2001US-0267459P.
PR   09-FEB-2001; 2001US-0267823P.
PR   15-FEB-2001; 2001US-0268974P.
PR   26-FEB-2001; 2001US-0271664P.
PR   27-FEB-2001; 2001US-0271839P.
PR   27-FEB-2001; 2001US-0271855P.
PR   02-MAR-2001; 2001US-0272788P.
PR   02-MAR-2001; 2001US-0273046P.
PR   14-MAR-2001; 2001US-0275925P.
PR   14-MAR-2001; 2001US-0275947P.
PR   14-MAR-2001; 2001US-0275950P.
PR   14-MAR-2001; 2001US-0275989P.
PR   15-MAR-2001; 2001US-0276448P.
PR   15-MAR-2001; 2001US-0276450P.
PR   16-MAR-2001; 2001US-0276397P.
PR   16-MAR-2001; 2001US-0276768P.
PR   20-MAR-2001; 2001US-0278652P.
PR   26-MAR-2001; 2001US-0278775P.
PR   26-MAR-2001; 2001US-0278778P.
PR   29-MAR-2001; 2001US-0279882P.
PR   29-MAR-2001; 2001US-0279884P.
PR   30-MAR-2001; 2001US-0280147P.
PR   11-APR-2001; 2001US-0282992P.
PR   11-APR-2001; 2001US-0283083P.
PR   20-APR-2001; 2001US-0285133P.
PR   23-APR-2001; 2001US-0285749P.
PR   03-MAY-2001; 2001US-0288327P.
PR   03-MAY-2001; 2001US-0288504P.
PR   29-MAY-2001; 2001US-0294047P.
PR   30-MAY-2001; 2001US-0294473P.
PR   08-JUN-2001; 2001US-0296964P.
PR   18-JUN-2001; 2001US-0298959P.
PR   19-JUN-2001; 2001US-0299324P.
PR   13-AUG-2001; 2001US-0312020P.
PR   16-AUG-2001; 2001US-0312889P.
PR   16-AUG-2001; 2001US-0312908P.
PR   21-AUG-2001; 2001US-0313390P.
PR   28-AUG-2001; 2001US-0315470P.
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PR   31-AUG-2001; 2001US-0316447P.
PR   07-SEP-2001; 2001US-0318115P.
PR   07-SEP-2001; 2001US-0318118P.
PR   12-SEP-2001; 2001US-0318740P.
PR   19-SEP-2001; 2001US-0323379P.
PR   18-OCT-2001; 2001US-0330245P.
PR   18-OCT-2001; 2001US-0330308P.
PR   14-NOV-2001; 2001US-0332701P.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Tchernev VT, Spytek KA, Zerhusen BD, Patturajan M, Shimkets RA;
PI   Li L, Gangolli EA, Padigaru M, Anderson DW, Rastelli L, Miller CE;
PI   Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CEA;
PI   Furtak K, Grosse WM, Alsobrook JP, Lepley DM, Rieger DK, Burgess CE;
XX
DR   WPI; 2002-706998/76.
XX
PT   New NOVX polypeptides and nucleic acids, useful for preventing or
PT   treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT   atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT   pharmacogenomics.
XX
PS   Disclosure; SEQ ID NO 521; 1498pp; English.
XX
CC   This invention relates to a novel nucleic acids, and encoded polypeptides
CC   thereof, which have properties related to the stimulation of biochemical
CC   or physiological responses in a cell, tissue, organ or organism.
CC   Specifically, it refers to the use of biologically active fragments for
CC   diagnostic and prognostic assays and furthermore in the treatment of
CC   diverse pathological conditions. The present invention describes novel
CC   human and murine NOVX proteins, as well as methods to modulate their
CC   expression using antisense oligos, ribozymes and peptide nucleic acids.
CC   The NOVX polypeptides, polynucleotides and antibodies are useful in
CC   treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC   atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC   treating or preventing diseases such as inflammation, autoimmune
CC   disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC   (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC   arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy
CC   and epilepsy. Accordingly, these molecules have many activities including
CC   cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,
CC   haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC   antiasthmatic, nephrotropic, antiarthritic, hepatotropic,
CC   neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC   relaxant and anticonvulsant. In addition, they are useful in screening
CC   assays to identify small molecules that modulate or inhibit, for example,
CC   neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC   used as in chromosome mapping, tissue typing, preventive medicine and
CC   pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC   of the invention.
XX
SQ   Sequence 361 AA;

  Query Match             82.2%;  Score 1597;  DB 5;  Length 361;
  Best Local Similarity   82.7%;  Pred. No. 1.1e-165;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||| | |||| ||||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| |||||||:|||||| ||||:| |:|||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
              |||
Db        357 EGDRL 361
```

```
RESULT 9
ADH69290
ID   ADH69290 standard; protein; 361 AA.
XX
AC   ADH69290;
XX
DT   25-MAR-2004  (first entry)
XX
DE   Rat orphan GPCR protein.
XX
KW   G-protein coupled receptor; GPCR; leukaemia; renal disorder;
KW   reproductive disorder; breast cancer; ovarian cancer; uterine cancer;
KW   cervical cancer; melanoma; gastrointestinal disorder; colon cancer;
KW   multiple myeloma; immune deficiency; B-cell neoplasm; T-cell neoplasm;
KW   Hodgkin's disease; follicular lymphoma; splenic marginal zone lymphoma;
KW   nodal marginal zone lymphoma; mantle cell lymphoma; hairy cell leukaemia;
KW   prolymphocytic leukaemia; lymphoplasmacytic lymphoma; Sezary syndrome;
KW   smoldering adult T cell leukaemia; Burkitt's lymphoma;
KW   post-organ transplant lymphoma; Castleman's disease;
KW   Rosai-Dorfman's disease; lymphomatoid papulosis; non-Hodgkin's lymphoma;
KW   infection; HIV; human immune deficiency virus; autoimmune disorder;
KW   Sjogren's syndrome; gene therapy; cytostatic; antibacterial; virucide;
KW   neuroprotective; inotropic; relaxant; gynaecological; gastrointestinal;
KW   cardiant; cardiovascular; nephrotropic; hepatotropic; immunostimulant;
KW   immunosuppressive; cerebroprotective; vasotropic; nootropic;
KW   antiallergic; vulnerary; rat.
XX
OS   Rattus sp.
XX
PN   US2003175748-A1.
XX
PD   18-SEP-2003.
XX
PF   10-OCT-2002; 2002US-00268332.
XX
PR   27-SEP-2000; 2000US-0235713P.
PR   16-JAN-2001; 2001US-0261783P.
PR   13-JUL-2001; 2001US-0305085P.
PR   17-AUG-2001; 2001US-0313171P.
PR   26-SEP-2001; 2001US-00964821.
XX
PA   (FEDE/) FEDER J N.
PA   (MINT/) MINTIER G.
PA   (RAMA/) RAMANATHAN C S.
PA   (HAWK/) HAWKEN D R.
PA   (CACA/) CACACE A.
PA   (BARB/) BARBER L E.
PA   (KORN/) KORNACKER M G.
XX
PI   Feder JN,  Mintier G,  Ramanathan CS,  Hawken DR,  Cacace A;
PI   Barber LE,  Kornacker MG;
XX
DR   WPI; 2003-898525/82.
XX
PT   New isolated nucleic acids encoding G-protein coupled receptor
PT   polypeptide, useful for diagnosing, treating, ameliorating and/or
PT   preventing disorders, such as cancer, infections, cardiovascular and
PT   inflammatory diseases.
XX
```

PS Disclosure; SEQ ID NO 15; 90pp; English.
XX
CC The present invention relates to human G-protein coupled receptors
CC (GPCRs), HGPRBMY3 and polynucleotides encoding such receptors. The
CC invention is useful for preventing, treating and/or ameliorating an
CC immune disorder, proliferative disorder of the immune system,
CC proliferative disorder of the haematopoietic system, proliferative
CC disorder of B-cells, proliferative disorder of T-cells, proliferative
CC disorder of lymph nodes, proliferative disorder of the spleen, leukaemia,
CC a renal disorder, proliferative disorder of the kidney, reproductive
CC disorder, proliferative disorder of the breast, breast cancer,
CC proliferative disorder of the ovary, ovarian cancer, proliferative
CC disorder of the uterus, uterine cancer, proliferative disorder of the
CC cervix, cervical cancer, proliferative disorder of the skin, melanoma,
CC gastrointestinal disorder, proliferative disorder of the colon, colon
CC cancer, multiple myeloma, immune deficiencies, B-cell neoplasms, T-cell
CC neoplasms, Hodgkin's disease, lymphoma, follicular lymphoma, splenic
CC marginal zone lymphoma, nodal marginal zone lymphoma, mantle cell
CC lymphoma, hairy cell leukaemia, prolymphocytic leukaemia (B cell or T
CC cell), lymphoplasmacytic lymphoma, Sezary syndrome, smoldering adult T
CC cell leukaemia/lymphoma, Burkitt's lymphoma, post-organ transplant
CC lymphoma, Castleman's disease, Rosai-Dorfman's disease, lymphomatoid
CC papulosis, non-Hodgkin's lymphoma, increased susceptibility to EPV
CC infection, increased susceptibility to HIV infection, increased
CC susceptibility to herpes viral infections, increased susceptibility to H.
CC pylori infections, autoimmune disorders, Sjogren's syndrome. The
CC invention is also useful in gene therapy. The present sequence is rat
CC orphan GPCR protein.
XX
SQ Sequence 361 AA;

Query Match 82.2%; Score 1597; DB 7; Length 361;
Best Local Similarity 82.7%; Pred. No. 1.1e-165;
Matches 302; Conservative 20; Mismatches 39; Indels 4; Gaps 1;

```
Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||  | |||| ||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| |||||||:|||||| ||||:| |:||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361
```

RESULT 10
ADF91782
ID ADF91782 standard; protein; 361 AA.
XX
AC ADF91782;
XX
DT 26-FEB-2004 (first entry)
XX
DE Rat orphan GPCR.
XX
KW cytostatic; anti-HIV; analgesic; anabolic; antiasthma; antiparkinsonian;
KW hypertensive; hypotensive; osteopathic; antiangina; cardiant; anti-ulcer;
KW antiallergic; neuroleptic; cardiovascular; neoplastic disease; cancer;
KW tumour; HIV infection; pain; anorexia; intestinal bowel disorder;
KW bulimia; asthma; Parkinson's disease; acute heart failure; hypotension;
KW hypertension; urinary retention; osteoporosis; angina pectoris;
KW myocardial infarction; ulcer; allergy; benign prostatic hypertrophy;
KW psychotic disorder; immune disorder; metabolic disorder;
KW cardiovascular disorder; neurological disorder;
KW G-protein coupled receptor; HGPRBMY3; rat; orphan GPCR.
XX
OS Rattus sp.
XX
PN US2003186360-A1.
XX
PD 02-OCT-2003.
XX
PF 26-SEP-2001; 2001US-00964821.
XX
PR 27-SEP-2000; 2000US-0235713P.
PR 16-JAN-2001; 2001US-0261783P.
PR 13-JUL-2001; 2001US-0305085P.
PR 17-AUG-2001; 2001US-0313171P.
XX
PA (FEDE/) FEDER J N.
PA (MINT/) MINTIER G.
PA (RAMA/) RAMANATHAN C S.
PA (HAWK/) HAWKEN D R.
PA (CACA/) CACACE A.
PA (BARB/) BARBER L.
PA (KORN/) KORNACKER M G.
XX
PI Feder JN, Mintier G, Ramanathan CS, Hawken DR, Cacace A;
PI Barber L, Kornacker MG;
XX
DR WPI; 2004-041196/04.
XX
PT New isolated nucleic acid molecule for treating or preventing, e.g. pain,
PT anorexia, intestinal bowel disorders, bulimia, asthma, or Parkinson's
PT disease.
XX
PS Disclosure; SEQ ID NO 15; 77pp; English.
XX
CC The invention describes an isolated nucleic acid molecule with
CC cytostatic, anti-HIV, analgesic, anabolic, antiasthma, antiparkinsonian,
CC hypertensive, hypotensive, osteopathic, antiangina, cardiant, anti-ulcer,
CC antiallergic, neuroleptic and cardiovascular properties. The invention is
CC used for preventing, treating, or ameliorating a medical condition, e.g.
CC pathological condition. It is used for, e.g. neoplastic diseases such as
CC cancers and tumours, HIV infections, pain, anorexia, intestinal bowel
CC disorders, bulimia, asthma, Parkinson's disease, acute heart failure,
CC hypotension, hypertension, urinary retention, osteoporosis, angina
CC pectoris, myocardial infarction, ulcers, allergies, benign prostatic
CC hypertrophy, psychotic, immune, metabolic, cardiovascular and
CC neurological disorders. The invention does not hybridise under stringent
CC conditions to a nucleic acid molecule having a nucleotide sequence of
CC only A residues or of only T residues. This is the amino acid sequence of
CC a receptor used in a n alignment with the novel human G-protein coupled
CC receptor HGPRBMY3 of the invention.
XX
SQ Sequence 361 AA;

Query Match 82.2%; Score 1597; DB 8; Length 361;
Best Local Similarity 82.7%; Pred. No. 1.1e-165;
Matches 302; Conservative 20; Mismatches 39; Indels 4; Gaps 1;

```
Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
```

```
Db        57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy       121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
             ||||||||||||||||||||||||:|||||| | |||| ||||||||||||||||||:  |
Db       117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy       181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
             ||:|||||| ||||||||:|||||| ||||:| |:|||||||||||||:||||: |||||
Db       177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy       241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
             |||||||||||||||||||||||||||||| ||||:||| |||||||||||||||||||||
Db       237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy       301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
             ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db       297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy       361 RADRL 365
             |||
Db       357 EGDRL 361
```

RESULT 11
ADR89629
ID ADR89629 standard; protein; 361 AA.
XX
AC ADR89629;
XX
DT 02-DEC-2004 (first entry)
XX
DE Rat G-protein coupled receptor.
XX
KW HGPRBMY23; G-protein coupled receptor; receptor; rat.
XX
OS Rattus sp.
XX
PN WO2004076636-A2.
XX
PD 10-SEP-2004.
XX
PF 26-FEB-2004; 2004WO-US005535.
XX
PR 26-FEB-2003; 2003US-00375157.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Barber LE, Cacace A, Feder JN, Nelson TC, Ramanathan CS;
PI Ryseck R, Neubauer MG, Kornacker MG;
XX
DR WPI; 2004-653403/63.
DR SWISSPROT; O35811.
XX
PT New nucleic acid molecules encoding HGPRBMY23 polypeptides of the G-
PT protein coupled receptor superfamily, useful for diagnosing, treating, or
PT ameliorating pulmonary, renal, or proliferative disorders, e.g. cancer.
XX
PS Disclosure; SEQ ID NO 9; 370pp; English.
XX
CC The present sequence is that of a rat G-protein coupled receptor that
CC shows 31% identity and 41% similarity to the protein sequence ADR89622 of
CC novel human G-protein coupled receptor HGPRBMY23. The invention provides
CC HGPRBMY23 polypeptides and polynucleotides, vectors, host cells,
CC antibodies, and recombinant and synthetic methods for producing the
CC polypeptides. Methods are provided for identifying agonists and
CC antagonists of HGPRBMY23. The polypeptides, polynucleotides, modulators
CC and methods are useful for diagnosing, treating or ameliorating a disease
CC or disorder related to HGPRBMY23, particularly renal diseases and/or
CC disorders, colon cancer, breast cancer, and diseases and disorders
CC related to aberrant NFkappaB modulation.
XX
SQ Sequence 361 AA;

Query Match 82.2%; Score 1597; DB 8; Length 361;
Best Local Similarity 82.7%; Pred. No. 1.1e-165;
Matches 302; Conservative 20; Mismatches 39; Indels 4; Gaps 1;

```
Qy         1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
             | | || |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db         1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy        61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
             :|||||||||||||||||||||||||||||:||||| ||||||| :||||||||||||||
Db        57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy       121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
             |||||||||||||||||||||||:|||||| | |||| ||||||||||||||||||:  |
Db       117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy       181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
             ||:|||||| ||||||||:|||||| ||||:| |:|||||||||||||:||||: |||||
Db       177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy       241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
             |||||||||||||||||||||||||||||| ||||:||| |||||||||||||||||||||
Db       237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy       301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
             ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db       297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy       361 RADRL 365
             |||
Db       357 EGDRL 361
```

RESULT 12
ADS84264
ID ADS84264 standard; protein; 361 AA.
XX
AC ADS84264;
XX
DT 13-JAN-2005 (first entry)
XX
DE Rat G protein-coupled receptor O35811.
XX
KW Rat; receptor; G protein-coupled receptor; GPCR; HGPRBMY3; HGPRBMY11;
KW HGPRBMY23; GPCR P2Y10; proliferative disorder; immunological disorder;
KW immunodeficiency disease; immune reaction; transplanted rejection;
KW autoimmunity disorder; hypersensitivity; cancer; neurological disorder;
KW dyskinesia; infection; arthritis; rheumatoid arthritis; asthma;
KW leukaemia; granulomatous disease; inflammatory bowel disease; sepsis;
KW allergy; acne; neutropenia; psoriasis; AIDS.
XX
OS Rattus sp.
XX
PN US2004209808-A1.
XX
PD 21-OCT-2004.
XX
PF 10-FEB-2004; 2004US-00775965.
XX
PR 11-FEB-2003; 2003US-0446655P.
XX
PA (KORN/) KORNACKER M G.
XX
PI Kornacker MG;
XX
DR WPI; 2004-747284/73.
XX
PT New isolated peptide, useful for treating e.g., immunodeficiency
PT diseases, immune reactions to transplanted organs and tissues,
PT autoimmunity disorders, hypersensitivities, or proliferative disorders
PT (e.g., cancer).
XX
PS Example 1; SEQ ID NO 15; 113pp; English.

```
XX
CC   The invention relates an isolated peptide which binds to the human G
CC   protein-coupled receptor (GPCR) HGPRBMY3 or to HGPRBMY11, HGPRBMY23 or
CC   GPCR P2Y10. Also included are an isolated nucleic acid encoding the
CC   peptides, a vector comprising the nucleic acid, a host cell comprising
CC   the vector (where the host cell is selected from bacterial, yeast,
CC   insect, mammalian, and plant cells), a primer or probe designed against
CC   the nucleic acids, a polypeptide complex (comprising a P2Y-type G-protein
CC   coupled receptor, and a peptide comprising an amino acid sequence above,
CC   or a polypeptide complex comprising a G-protein coupled receptor selected
CC   from P2Y10, human G-protein coupled receptor (HGPR)BMY3, HGPRBMY11, and
CC   HGPRBMY23, and a peptide comprising the amino acid sequence above), an
CC   antibody that binds to the peptide, a peptide library generated from the
CC   nucleic acid molecules, identifying a binding agent for a P2Y-type G-
CC   protein coupled receptor (or G-protein coupled receptor selected from
CC   P2Y10, HGPRBMY3, HGPRBMY11, and HGPRBMY23), identifying a P2Y-type G-
CC   protein coupled receptor, identifying a binding agent for a P2Y-type G-
CC   protein coupled receptor, a kit for detecting a P2Y-type G-protein
CC   coupled receptor (comprising the binding peptide or the antibody and one
CC   or more reagents for detecting binding of the receptor and the peptide or
CC   antibody), diagnosing a proliferative disorder and a pharmaceutical
CC   composition (comprising the nucleic acid molecule, the isolated vector,
CC   the peptide or the antibody, and a carrier, excipient, or diluent). The
CC   pharmaceutical composition is useful for treating a proliferative
CC   disorder. The peptides are useful as diagnostic, prophylactic, and
CC   therapeutic agents for immunological disorders, immunodeficiency
CC   diseases, immune reactions to transplanted organs and tissues,
CC   autoimmunity disorders, hypersensitivities, cancer, neurological
CC   disorders, dyskinesias, and infection susceptibility, arthritis,
CC   rheumatoid arthritis, asthma, leukaemia, granulomatous disease,
CC   inflammatory bowel disease, sepsis, allergies, acne, neutropenia,
CC   psoriasis, AIDS and many more diseases and disorders given in the
CC   specification. The present sequence represents a GPCR homologous to
CC   HGPRBMY3.
XX
SQ   Sequence 361 AA;

  Query Match             82.2%;  Score 1597;  DB 8;  Length 361;
  Best Local Similarity   82.7%;  Pred. No. 1.1e-165;
  Matches  302;  Conservative   20;  Mismatches   39;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | || |  ||| ||  |      || |:|:||||||:|||||||||| |||||||||
Db          1 MTSAESLLFTSLGPSPSSGDG----DCRFNEEFKFILLPMSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:||||| ||||||| :|||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGLCKFVRFLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              ||||||||||||||||||||||:|||||| | |||| ||||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYLGICHPLRAIRWGRPRFASLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| |||||||:|||||| ||||:| |:||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSAVMVLLFGLPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              |||||||||||||||||||||||||||||| ||||:||| ||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYQARLLQADCHVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| | ||:||||||||||:| |:|  ||| | |||: |
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSKPKPRTAASSLALVTLHEESISRWADTHQDSTFSAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361


RESULT 13
ADO29599
ID   ADO29599 standard; protein; 361 AA.
XX
AC   ADO29599;
XX
DT   29-JUL-2004  (first entry)
XX
DE   Mouse GPCR P2RY4, SEQ ID NO:701.
XX
KW   G protein-coupled receptor; GPCR; drug screening; diagnosis;
KW   transgenic mouse; neurological disorder; adrenal gland disorder;
KW   colon disorder; intestinal disorder; cardiovascular disorder;
KW   muscular disorder; blood disorder; immune disorder; bone disorder;
KW   joint disorder; metabolic disorder; nutritive disorder; cancer;
KW   kidney disorder; liver disorder; lung disorder; breast disorder;
KW   ovary disorder; uterus disorder; prostate disorder; testis disorder;
KW   skin disorder; stomach disorder; pancreas disorder; spleen disorder;
KW   thymus disorder; thyroid disorder; antiparkinsonian; antimanic;
KW   cytostatic; antiinflammatory; vasotropic; antianginal; antiarrhythmic;
KW   CNS; central nervous system; respiratory; antidiarrhoeic; antidiabetic;
KW   virucide; hepatotropic; antibacterial; antianaemic; antiseborrhoeic;
KW   dermatological; antiulcer; antithyroid; antiallergic; anorectic;
KW   immunosuppressive; nephrotropic; gene therapy; GPCR modulator; mouse;
KW   murine; receptor.
XX
OS   Mus musculus.
XX
PN   WO2004040000-A2.
XX
PD   13-MAY-2004.
XX
PF   09-SEP-2003; 2003WO-US028226.
XX
PR   09-SEP-2002; 2002US-0409303P.
PR   09-APR-2003; 2003US-0461329P.
XX
PA   (PRIM-) PRIMAL INC.
XX
PI   Gaitanaris GA,  Bergmann JE,  Gragerov A,  Hohmann J,  Li F;
PI   Madisen L,  Mcilwain KL,  Pavlova MN,  Vassilatis D,  Zeng H;
XX
DR   WPI; 2004-390329/36.
DR   N-PSDB; ADO30308.
XX
PT   Novel mammalian G protein coupled receptors, useful for identifying
PT   compounds that modulates diagnosing and treating disease condition
PT   associated with GPCR dysfunction e.g. autoimmune diseases, angina
PT   pectoris, Parkinson's disease.
XX
PS   Claim 151; SEQ ID NO 701; 542pp; English.
XX
CC   The invention relates to human and mouse G protein-coupled receptors
CC   (GPCRs) and nucleic acids encoding them. The invention also relates to
CC   sequences at least 90% identical to the GPCR proteins and nucleic acids
CC   of the invention; methods of treating, preventing or diagnosing diseases
CC   associated with GPCRs of the invention; methods of screening for
CC   compounds useful in the treatment of GPCR-related diseases; a transgenic
CC   mouse comprising a GPCR gene of the invention; a mouse comprising a
CC   mutation in a GPCR transgene or in an endogenous GPCR gene; cells derived
CC   from the trasngenic mice; kits comprising several mice, each of which has
CC   a mutation in a different GPCR gene of the invention; and kits comprising
CC   probes which hybridise to GPCR polynucleotides of the invention. The
CC   invention further discloses variants of the GPCR polypeptides and vectors
CC   comprising a GPCR nucleic acid. The GPCR nucleic acids and proteins may
CC   be used in the diagnosis, treatment or prevention of a wide variety of
CC   diseases including neurological disorders (e.g., Alzheimer's disease,
CC   depression, diabetic neuropathy, Parkinson's disease or schizophrenia);
CC   disorders of the adrenal gland; disorders of the colon or intestine
CC   (e.g., Crohn's disease, diarrhoea, food poisoning or irritable bowel
CC   syndrome); cardiovascular disorders (e.g., angina, cardiac arrhythmia or
CC   myocardial infarction); muscular disorders; blood disorders (e.g.,
CC   anaemia or leukaemia); immune disorders (e.g., autoimmune disorders or
CC   AIDS); bone and joint disorders (e.g., osteoarthritis, rheumatoid
CC   arthritis, gout or osteoporosis); metabolic or nutritive disorders (e.g.,
CC   obesity, enzyme deficiency-related diseases or vitamin deficiency-related
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CC   diseases); and disorders of the kidney, liver, lung, breast, ovary,
CC   uterus, prostate, testis, skin, stomach, pancreas, spleen, thymus and
CC   thyroid (e.g., cancers). The present sequence represents a GPCR of the
CC   invention. Note: The full sequence data for this patent did not form part
CC   of the printed specification; those sequences not shown were obtained in
CC   electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 361 AA;

  Query Match             80.3%;  Score 1561;  DB 8;  Length 361;
  Best Local Similarity   80.8%;  Pred. No. 9.6e-162;
  Matches  295;  Conservative   20;  Mismatches   46;  Indels    4;  Gaps    1;

Qy          1 MASTESSLLRSLGLSPGPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLWLF 60
              | | :| |  ||| ||  |      || |:|:|||||||:|||||||||| |||||||||
Db          1 MTSADSLLFTSLGPSPSSGDG----DCKFNEEFKFILLPLSYAVVFVLGLALNAPTLWLF 56

Qy         61 IFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWNLY 120
              :|||||||||||||||||||||||||||||:|||||  |||||||  ||||||||||||
Db         57 LFRLRPWDATATYMFHLALSDTLYVLSLPTLVYYYAARNHWPFGTGFCKFVRPLFYWNLY 116

Qy        121 CSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSNKG 180
              |||||||||||||:||||||||:|||||| |||||| ||||||||||||||||||:  |
Db        117 CSVLFLTCISVHRYMGICHPLRAIRWGRPRFAGLLCLGVWLVVAGCLVPNLFFVTTNANG 176

Qy        181 TTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQPLPGSAQSSSR 240
              ||:|||||| ||||||||:||| :| |||| | |:|||||||||||||:||||: |||||
Db        177 TTILCHDTTLPEEFDHYVYFSSTIMVLLFGFPFLITLVCYGLMARRLYRPLPGAGQSSSR 236

Qy        241 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLASANSC 300
              ||||||||||||||||||||||||||||||||||| |:|||||||||||||||||||||
Db        237 LRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLNAECRVLNIVNVVYKVTRPLASANSC 296

Qy        301 LDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASSLALVSLPEDSSCRWAATPQDSSCSTP 360
              ||||||| |||||| ||:||| |  |: || |||||||:| |:|  |||   |||
Db        297 LDPVLYLFTGDKYRNQLQQLCRGSTPKRRTTASSLALVTLHEESISRWADIHQDSIFPAY 356

Qy        361 RADRL 365
                |||
Db        357 EGDRL 361


RESULT 14
AAE04390
ID   AAE04390 standard; protein; 374 AA.
XX
AC   AAE04390;
XX
DT   04-SEP-2001  (first entry)
XX
DE   Turkey P2Y nucleotide receptor.
XX
KW   Turkey; P2-purinergic receptor; P2Y12; vasotropic; thrombolytic;
KW   cerebroprotective; gynaecological; ADP; adenosine 5'-diphosphate; angina;
KW   myocardial infarction; ischaemic attack; preeclampsia; bleeding disorder;
KW   carotid endarterectomy; vascular graft surgery; brain disorder; migraine;
KW   vascular injury; schizophrenia; eating disorder; depression; angioplasty;
KW   peripheral vascular disease; platelet aggregation; restenotic; embolism;
KW   thrombocytopaenic purpura; stroke; pertussis toxin-sensitive G protein;
KW   Gi; disseminated intravascular coagulation; P2Y nucleotide receptor;
KW   cardiant; thrombosis.
XX
OS   Meleagris gallopavo.
XX
PN   WO200146454-A1.
XX
PD   28-JUN-2001.
XX
PF   26-DEC-2000; 2000WO-US034998.
XX
PR   23-DEC-1999;   99US-0171622P.
XX
PA   (CORT-) COR THERAPEUTICS INC.
XX
PI   Conley PB,  Jantzen H,  Ramakrishnan-Dubridge V,  Julius DJ;
PI   Hollopeter G;
XX
DR   WPI; 2001-418082/44.
XX
PT   Novel isolated ADP receptor, termed P2Y12 receptor polypeptide, useful
PT   for identifying binding partners and for diagnostic applications.
XX
PS   Disclosure; Page 95-96; 108pp; English.
XX
CC   The invention relates to ADP (adenosine 5'-diphosphate) receptor, termed
CC   as P2Y12 receptor and its corresponding cDNA molecule. P2Y12 receptor is
CC   the subtype of P2-purinergic receptor. The P2Y12 receptor is expressed
CC   selectively in the platelets and brain, and couples to a pertussis toxin-
CC   sensitive G protein (Gi). P2Y12 receptor is a G protein-coupled receptor
CC   that responds to ADP. The invention also relates to a method for
CC   identifying an agent which is useful for modulating acute myocardial
CC   infarction, unstable angina, chronic stable angina, transient ischaemic
CC   attacks, strokes, peripheral vascular disease, preeclampsia, deep venous
CC   thrombosis, embolism, disseminated intravascular coagulation, thrombotic
CC   thrombocytopaenic purpura or a bleeding disorder; thrombotic and
CC   restenotic complications following angioplasty, carotid endarterectomy,
CC   post CABG (coronary artery bypass graft) surgery, vascular graft surgery,
CC   stent placements or insertion of endovascular devices and prostheses.
CC   P2Y12 receptor is useful for identifying binding partners and for
CC   diagnostic applications. P2Y12 receptor provides targets for screening
CC   synthetic small molecules and combinatorial or naturally occurring
CC   compound libraries to regulate platelet aggregation, vascular injury, or
CC   disease as well as schizophrenia, eating disorders, depression, migraine
CC   and other brain disorders. The present sequence is turkey P2Y nucleotide
CC   receptor related to the invention
XX
SQ   Sequence 374 AA;

  Query Match             58.0%;  Score 1127.5;  DB 4;  Length 374;
  Best Local Similarity   59.3%;  Pred. No. 3e-114;
  Matches  208;  Conservative   56;  Mismatches   70;  Indels   17;  Gaps    4;

Qy          9 LRSLGLSP----------GPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
              :|   |:|          |  ::  |  | |:|:|||||||:|| :|||:|| ||:  :|
Db          5 VRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMW 64

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
              :|: |:|||:|| ||||:||:|||||| |||||:||||  |:||||   || ||||||.|
Db         65 IFVSRMRPWNATTTYMFNLAISDTLYVFSLPTLVYYYADRNNWPFGKVFCKIVRFLFYAN 124

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              || |:||||||||||:|||||:|:|:| : : | |:|: |||||  ||:||| |||||:
Db        125 LYSSILFLTCISVHRYMGICHPIRSLKWVKTKHARLICVGVWLVVTICLIPNLIFVTTSS 184

Qy        179 KGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSA 235
              |  : ||||||:||||||||||:||::| ||||:| || :||| |||:|| :   | |
Db        185 KDNSTLCHDTTKPEEFDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRSFPSPSPR 244

Qy        236 QSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLA 295
                | : ||:: | :||||||:||||||||||:|| :|  :|||: |||:|  ||:|||||
Db        245 VPSYKKRSIKMIIIVLTVFAICFVPFHITRTLYYTSRYFQADCQTLNIINFTYKITRPLA 304

Qy        296 SANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASS-LALVSLPEDSS 345
              | ||||||:|| : ||||| :||:   |  :||   :| |||||   |||
Db        305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352


RESULT 15
ADI16982
ID   ADI16982 standard; protein; 374 AA.
XX
AC   ADI16982;
XX
DT   15-APR-2004  (first entry)
XX
```

DE Turkey NOVX protein homologue SeqID 518.
XX
KW turkey; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
KW inflammation; autoimmune disorder; allergy; blood disorder;
KW acquired immunodeficiency syndrome; AIDS; obesity; asthma;
KW immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
KW Alzheimer's disease; infection; str.
XX
OS Meleagris gallopavo.
XX
PN WO200268649-A2.
XX
PD 06-SEP-2002.
XX
PF 31-JAN-2002; 2002WO-US002785.
XX
PR 31-JAN-2001; 2001US-0265395P.
PR 31-JAN-2001; 2001US-0265412P.
PR 31-JAN-2001; 2001US-0265514P.
PR 31-JAN-2001; 2001US-0265517P.
PR 02-FEB-2001; 2001US-0266406P.
PR 05-FEB-2001; 2001US-0266767P.
PR 07-FEB-2001; 2001US-0266975P.
PR 07-FEB-2001; 2001US-0267057P.
PR 08-FEB-2001; 2001US-0267459P.
PR 09-FEB-2001; 2001US-0267823P.
PR 15-FEB-2001; 2001US-0268974P.
PR 26-FEB-2001; 2001US-0271664P.
PR 27-FEB-2001; 2001US-0271839P.
PR 27-FEB-2001; 2001US-0271855P.
PR 02-MAR-2001; 2001US-0272788P.
PR 02-MAR-2001; 2001US-0273046P.
PR 14-MAR-2001; 2001US-0275925P.
PR 14-MAR-2001; 2001US-0275947P.
PR 14-MAR-2001; 2001US-0275950P.
PR 14-MAR-2001; 2001US-0275989P.
PR 15-MAR-2001; 2001US-0276448P.
PR 15-MAR-2001; 2001US-0276450P.
PR 16-MAR-2001; 2001US-0276397P.
PR 16-MAR-2001; 2001US-0276768P.
PR 20-MAR-2001; 2001US-0278652P.
PR 26-MAR-2001; 2001US-0278775P.
PR 26-MAR-2001; 2001US-0278778P.
PR 29-MAR-2001; 2001US-0279882P.
PR 29-MAR-2001; 2001US-0279884P.
PR 30-MAR-2001; 2001US-0280147P.
PR 11-APR-2001; 2001US-0282992P.
PR 11-APR-2001; 2001US-0283083P.
PR 20-APR-2001; 2001US-0285133P.
PR 23-APR-2001; 2001US-0285749P.
PR 03-MAY-2001; 2001US-0288327P.
PR 03-MAY-2001; 2001US-0288504P.
PR 29-MAY-2001; 2001US-0294047P.
PR 30-MAY-2001; 2001US-0294473P.
PR 08-JUN-2001; 2001US-0296964P.
PR 18-JUN-2001; 2001US-0298959P.
PR 19-JUN-2001; 2001US-0299324P.
PR 13-AUG-2001; 2001US-0312020P.
PR 16-AUG-2001; 2001US-0312889P.
PR 16-AUG-2001; 2001US-0312908P.
PR 21-AUG-2001; 2001US-0313390P.
PR 28-AUG-2001; 2001US-0315470P.
PR 31-AUG-2001; 2001US-0316447P.
PR 07-SEP-2001; 2001US-0318115P.
PR 07-SEP-2001; 2001US-0318118P.
PR 12-SEP-2001; 2001US-0318740P.
PR 19-SEP-2001; 2001US-0323379P.
PR 18-OCT-2001; 2001US-0330245P.
PR 18-OCT-2001; 2001US-0330308P.
PR 14-NOV-2001; 2001US-0332701P.
XX
PA (CURA-) CURAGEN CORP.
XX

PI Tchernev VT, Spytek KA, Zerhusen BD, Patturajan M, Shimkets RA;
PI Li L, Gangolli EA, Padigaru M, Anderson DW, Rastelli L, Miller CE;
PI Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CEA;
PI Furtak K, Grosse WM, Alsobrook JP, Lepley DM, Rieger DK, Burgess CE;
XX
DR WPI; 2002-706998/76.
XX
PT New NOVX polypeptides and nucleic acids, useful for preventing or
PT treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT pharmacogenomics.
XX
PS Disclosure; SEQ ID NO 518; 1498pp; English.
XX
CC This invention relates to a novel nucleic acids, and encoded polypeptides
CC thereof, which have properties related to the stimulation of biochemical
CC or physiological responses in a cell, tissue, organ or organism.
CC Specifically, it refers to the use of biologically active fragments for
CC diagnostic and prognostic assays and furthermore in the treatment of
CC diverse pathological conditions. The present invention describes novel
CC human and murine NOVX proteins, as well as methods to modulate their
CC expression using antisense oligos, ribozymes and peptide nucleic acids.
CC The NOVX polypeptides, polynucleotides and antibodies are useful in
CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC treating or preventing diseases such as inflammation, autoimmune
CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy
CC and epilepsy. Accordingly, these molecules have many activities including
CC cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,
CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC antiasthmatic, nephrotropic, antiarthritic, hepatotropic,
CC neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC relaxant and anticonvulsant. In addition, they are useful in screening
CC assays to identify small molecules that modulate or inhibit, for example,
CC neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC used as in chromosome mapping, tissue typing, preventive medicine and
CC pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC of the invention.
XX
SQ Sequence 374 AA;

Query Match 58.0%; Score 1127.5; DB 5; Length 374;
Best Local Similarity 59.3%; Pred. No. 3e-114;
Matches 208; Conservative 56; Mismatches 70; Indels 17; Gaps 4;

```
Qy          9 LRSLGLSP----------GPGSSEVELDCWFDEDFKFILLPVSYAVVFVLGLGLNAPTLW 58
              :|   |:|          |  ::  |  | |:|:|||||||:|| :|||:|| ||:  :|
Db          5 VRMFSLAPWTPTPTPWLGGNTTAAAEAKCVFNEEFKFILLPISYGIVFVVGLPLNSWAMW 64

Qy         59 LFIFRLRPWDATATYMFHLALSDTLYVLSLPTLIYYYAAHNHWPFGTEICKFVRFLFYWN 118
              :|: |:|||:|| ||||:||:|||||| |||||:|||| |:|||| || |||||| |
Db         65 IFVSRMRPWNATTTYMFNLAISDTLYVFSLPTLVYYYADRNNWPFGKVFCKIVRFLFYAN 124

Qy        119 LYCSVLFLTCISVHRYLGICHPLRALRWGRPRLAGLLCLAVWLVVAGCLVPNLFFVTTSN 178
              || |:||||||||||:|||||:|:|:| : : | |:|: |||||  ||:||| |||||:
Db        125 LYSSILFLTCISVHRYMGICHPIRSLKWVKTKHARLICVGVWLVVTICLIPNLIFVTTSS 184

Qy        179 KGTTVLCHDTTRPEEFDHYVHFSSAVMGLLFGVPCLVTLVCYGLMARRLYQ---PLPGSA 235
              |  : ||||||:|||||||||:||::| ||||:| || :||| |||:|| :   | |
Db        185 KDNSTLCHDTTKPEEFDHYVHYSSSIMALLFGIPFLVIVVCYCLMAKRLCKRSFPSPSPR 244

Qy        236 QSSSRLRSLRTIAVVLTVFAVCFVPFHITRTIYYLARLLEADCRVLNIVNVVYKVTRPLA 295
              | : ||:: | :|||||:|||||||||:|| :|  :|||: |||:|  ||:|||||
Db        245 VPSYKKRSIKMIIIVLTVFAICFVPFHITRTLYYTSRYFQADCQTLNIINFTYKITRPLA 304

Qy        296 SANSCLDPVLYLLTGDKYRRQLRQLCGGGKPQPRTAASS-LALVSLPEDSS 345
              | ||||||:|| : ||||| :||:   |   :||   :| |||||   |||
Db        305 SINSCLDPILYFMAGDKYRGRLRR---GAAQRPRPVPTSLLALVSPSVDSS 352
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Search completed: April 4, 2006, 20:10:12

Job time : 193 secs